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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.

The RF radiation near the ground (2 meters above ground) can be calculated using the OET-65 formula for broadcast television stations taking into account the following factors

S= power density in watts per square meter

P= total Effective Radiated Power from the antenna

F= field radiated on the axis to the ground level

R= distance to the ground level (actually 2 meters above ground)

Therefore, given the following data for the proposed channel 36 facility:

P= 325 watts

R=Radiation center above ground level – 2 meters)
= 50 meters

F= 0.1 for UHF antennas

The RF radiation near the ground level can be calculated with the following result:

0.04 $\mu\text{watts/cm}^2$

which is 0.01 % of the general population exposure limit of 403 $\mu\text{w/cm}^2$

In addition to the proposed facilities, there are other sources of RF radiation on that tower. In particular, radiation comes from K10CG-D, K14MG, K19CM, K27GJ-D, K29HR-D and K43AI-D. The contributions from each source are calculated below and then summed to get the total RF exposure for this tower.

K10CG (CH 10)

P= 300 watts

R=Radiation center above ground level – 2 meters)
= 28.5 meters

F= 0.2 for VHF antennas

The RF radiation near the ground level can be calculated with the following result:

0.49 $\mu\text{watts/cm}^2$

which is 0.25 % of the general population exposure limit of 200 $\mu\text{w/cm}^2$

K14MG (CH 14)

P= 8500 watts

R=Radiation center above ground level – 2 meters)
= 29 meters

F= 0.1 for UHF antennas

The RF radiation near the ground level can be calculated with the following result:

1.68 $\mu\text{watts/cm}^2$

which is 0.53 % of the general population exposure limit of 315 $\mu\text{w/cm}^2$

K19CM (CH 19)

P= 1210 watts

R=Radiation center above ground level – 2 meters)
= 28.5 meters

F= 0.1 for UHF antennas

The RF radiation near the ground level can be calculated with the following result:

0.25 $\mu\text{watts/cm}^2$

which is 0.07 % of the general population exposure limit of 335 $\mu\text{w/cm}^2$

K27GJ-D (CH 27)

P= 2000 watts

R=Radiation center above ground level – 2 meters)
= 50 meters

F= 0.1 for UHF antennas

The RF radiation near the ground level can be calculated with the following result:

0.27 $\mu\text{watts/cm}^2$

which is 0.07 % of the general population exposure limit of 363 $\mu\text{w/cm}^2$

K29HR-D (CH 29)

P= 4400 watts

R=Radiation center above ground level – 2 meters)
= 42 meters

F= 0.1 for UHF antennas

The RF radiation near the ground level can be calculated with the following result:

0.84 $\mu\text{watts/cm}^2$

which is 0.22 % of the general population exposure limit of 375 $\mu\text{w/cm}^2$

K43AI (CH 43)

P= 3170 watts

R=Radiation center above ground level – 2 meters)
= 50 meters

F= 0.1 for UHF antennas

The RF radiation near the ground level can be calculated with the following result:

0.42 $\mu\text{watts/cm}^2$

which is 0.10 % of the general population exposure limit of 431 $\mu\text{w/cm}^2$

TOTAL RF EXPOSURE

The total RF exposure can be obtained by summing the individual percentages. Thus the total RF exposure predicted is $0.25+0.53+0.07+0.07+0.22+0.1+0.04=1.24\%$ of the General Population Exposure Limit.

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

Sincerely,



President