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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 facility:

P= 3.0 kwatts

R=Radiation center above ground level – 2 meters)
= 26 meters

F= 0.2 for VHF antennas

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

5.91 μwatts/cm^2

which is 2.96% of the general population exposure limit of 200 μw/cm^2

There are also 3 other significant radiators from the tower for the proposed facility. They are K18HD, KGET, and K46II. The RF exposure calculations that follow describe the amount from these radiators and then all the RF exposure percentages are added together to get the total RF exposure for that facility.

K18HD

P= 3.0 kwatts

R=Radiation center above ground level – 2 meters)
= 23.3 meters

F= 0.1 for UHF antennas

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

1.851 μwatts/cm^2

which is 0.56% of the general population exposure limit of 331 μw/cm^2

KGET (CH 25)

P= 135.0 kwatts

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:

17.95 μwatts/cm^2

which is 5.0% of the general population exposure limit of 359 μw/cm^2

K46II

P= 15.0 kwatts

R=Radiation center above ground level – 2 meters)
= 15.4 meters

F= 0.1 for UHF antennas

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

21.2 μwatts/cm^2

which is 4.78% of the general population exposure limit of 443 μw/cm^2

The combined RF exposure percentage of the General Population exposure limit is 0.56+5.0+4.78+2.96= 13.3% so this meets the OET-65 limits with plenty of margin.

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

Sincerely,

Gregory L. Best, PE

President