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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:

P= 13.1 kwatts

R=Radiation center above ground level – 2 meters)
= 24.3 meters

F= 0.1 for UHF antennas

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

7.41 μwatts/cm^2

which is 2.29 % of the general population exposure limit of 323 μw/cm^2 and 0.5 % of the Occupational Controlled limits.

In addition to the KHSC transmitter, KSDI (RF 33) is also combined into the same antenna. To determine the total RF exposure, the RF exposure from KSDI must be added to the RF exposure from KHSC.

Therefore, given the following data for KSDI:

P= 4.3 kwatts

R=Radiation center above ground level – 2 meters)
= 24.3 meters

F= 0.1 for UHF antennas

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

2.43 μwatts/cm^2

which is 0.62 % of the general population exposure limit of 391 μw/cm^2 and 0.1 % of the Occupational Controlled limits for this channel.

Thus the total RF exposure is KHSC + KSDI = 2.29 % + 0.62 % = 2.91% of the General Population Exposure limit.

The communications site where the transmission facilities are located is fenced, locked, and has appropriate signage so it qualifies as an Occupational Controlled site. The calculated level is significantly less than the FCC's limit of 1.62 mW/cm^2 for channel 16 for a "controlled" environment. And based on the responsibility threshold of 5% of the general population exposure limit, the proposal will comply with the current RF emission requirements.

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

Sincerely,

Gregory L Best, PE

President