

# GREG BEST CONSULTING, INC.

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Federal Communications Commission  
Media Bureau  
445 12<sup>th</sup> 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= 4.9 kwatts

R=Radiation center above ground level – 2 meters)  
= 30 meters

F= 0.1 for UHF antennas

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

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

which is 2.08 % of the general population exposure limit of 355  $\mu\text{w}/\text{cm}^2$  and 0.4 % of the Occupational Controlled limits.

There are two other transmission facilities on the same tower as the proposed facility. The RF exposure from the other two sources must be included in the total RF exposure analysis to be sure the OET-65 limit for is not exceeded for this tower. The other radiation sources are from K09UF and K57BC. The following analysis can be executed for those radiation sources.

## **K09UF (ANALOG)**

P= 3.0 kwatts

R=Radiation center above ground level – 2 meters)  
= 36 meters

F= 0.2 for VHF antennas

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

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

which is 1.74 % of the general population exposure limit of 200  $\mu\text{w}/\text{cm}^2$  for channel 9.

**K57BC (ANALOG)**

P= 804 watts

R=Radiation center above ground level – 2 meters)  
= 19 meters

F= 0.1 for UHF antennas

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

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

which is 0.08 % of the general population exposure limit of 487 $\mu\text{w}/\text{cm}^2$ .

The total RF exposure percentage is found by summing the RF exposure percentages of the individual sources.

Thus the total RF exposure is  $2.08 + 1.74 + 0.08 = 3.90 \%$

This proposal will comply with the OET-65 General Population Exposure limits.

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

Sincerely,



President