

# 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 for the proposed facility:

P= 32 kwatts in the Horizontal Polarization and 25.9 kwatts in the Vertical Polarization for a total RF power of 57.9 kW (Both powers are summed together to get the total RF exposure).

R=Radiation center above ground level – 2 meters)  
= 360.5 meters

F= 0.2 for VHF antennas

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

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

which is 0.3 % of the general population exposure limit of 200  $\mu\text{w}/\text{cm}^2$  for this channel.

There is also the WMVT channel 35 DTV facility located on this tower with a construction permit for 807 kW in the Horizontal Polarization and 632 kW in the Vertical Polarization. The contribution from this facility may be calculated using the combined total RF power as follows:

## **WMVT**

P= 807 kwatts in the Horizontal Polarization and 632 kwatts in the Vertical Polarization for a total RF power of 1439 kW (Both powers are summed together to get the total RF exposure).

R=Radiation center above ground level – 2 meters)  
= 360.7 meters

F= 0.1 for UHF antennas

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

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

which is 0.93 % of the general population exposure limit of 399  $\mu\text{w}/\text{cm}^2$  for this channel.

The total RF exposure is calculated by summing the percentages from each source. In this case the total RF exposure is 0.93 % + 0.3 % = 1.23 %.

This calculation indicates the RF exposure meets the OET-65 General Population Exposure and Controlled and Occupational Environment requirements.

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

Sincerely,

A handwritten signature in black ink that reads "Gregory L. Best, PE". The signature is written in a cursive style with a horizontal line through the middle.

President