

September 27, 2019

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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 facility proposed for WKMA.

The RF radiation near the ground (2 meters above ground) can be calculated using the OET-65 formula (Eq. 7, accounting for the worst-case complete reflection) for broadcast television stations taking into account the following factors

S = power density (in watts per square meter or $\mu\text{watts}/\text{cm}^2$)

P = total Effective Radiated Power from the antenna (the sum of H-pol and V-pol ERPs)

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:

$P = 48.8 \text{ kW} = 36.7 \text{ kW Horizontal} + 12.1 \text{ kW Vertical}$

$R = \text{Radiation center above ground level} - 2 \text{ meters}$
 $= 292.9 \text{ m}$

$F = 0.2$ for UHF antennas

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

$S = 0.760 \mu\text{watts}/\text{cm}^2$

which is 0.198 % of the general population exposure limit of $383 \mu\text{w}/\text{cm}^2$ for this channel 31 facility.

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

Sincerely,



Myron D. Fanton, PE