

## RF & ENVIRONMENTAL COMPLIANCE EXHIBIT

December 30, 2023

The proposed W34FK-D facility will comply with the FCC Rules regarding RF exposure. The calculation of RF energy at 2-m above the rooftop was made under the procedures of OET Bulletin No. 65. The formula employed is as follows:

$$S = (33.4)F^2 * \frac{P}{R^2}$$

where,  $S$  = power density in uW/cm<sup>2</sup>,  $F$  = relative field factor at the angle to the calculation point,  $P$  = the total effective radiated power relative to a dipole in watts, and  $R$  = distance from the antenna radiation center to the calculation point in meters.

The proposed antenna will be mounted with the radiation center at a height of 22.1 meters above ground on an existing tower that does not require registration. The power density at 2 meters above ground, around the base of the tower, based on a “worst-case” vertical relative field value of 0.12 for any depression angle greater than 30° below horizon, a total ERP of 2.5 kW (Hpol) is 3.0 microwatts per square centimeter (uW/cm<sup>2</sup>), or 0.8 % of the Commission’s recommended limit applicable to uncontrolled exposure areas, 395.3 uW/sq. cm for channel 34.

Since the RF exposure is less than the FCC limits for uncontrolled environments, the proposal is believed to comply with the FCC limits for human exposure to RF radiation, and since the antenna will be mounted on an existing tower, the proposal is believed to be compliant with FCC environmental rules.

The applicant will verify that access to the tower is restricted, and the site appropriately marked with RFR warning signs. In addition, if workers or other authorized personnel need to climb the tower, appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure, including scheduling work when the station is shut down.



Grafton Olivera, P.E.  
Consulting Engineer  
5119 60<sup>th</sup> Dr. E  
Bradenton, FL 34203