

RF & ENVIRONMENTAL COMPLIANCE EXHIBIT

February 14, 2023

The proposed W22FA-D facility will comply with the FCC Rules regarding RF exposure. The calculation of RF energy at 2-m above ground level 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 $\mu\text{W}/\text{cm}^2$, 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 radiation center at a height of 36.5 meters above ground on an existing tower and site housing the existing facility of W22FA-D. The power density at 2 meters above ground, around the base of the tower, based on a “worst-case” vertical relative field value of 0.2 for any depression angle greater than 30° below horizon, a total ERP of 15 kW (Hpol) and an antenna center of radiation height above ground of 36.5 meters, is 16.8 microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$), or 4.8 % of the Commission’s recommended limit applicable to uncontrolled exposure areas, 347.3 $\mu\text{W}/\text{sq. cm}$ for channel 22.

Since the RF exposure is predicted to be under 5% of FCC limits for uncontrolled environments, with multiple RF emitters, 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 in compliance with the FCC environmental rules.

The applicant will verify that access to the tower site 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. Such procedures include scheduling work when the station is shut down.

Grafton Olivera, P.E.
Technical Consultant
5119 60th Drive E.
Bradenton, FL 34203

Tel. 941-323-0381