Grafton Olivera, P.E.
Consulting Engineer

RF COMPLIANCE EXHIBIT

April 19, 2021

The proposed W33ED-D [W34DY-D] facility will comply with the FCC Rules regarding RF exposure. The calculation of RF energy at 2-m above ground was made under the procedures of OET Bulletin No. 65. The formula employed is as follows:

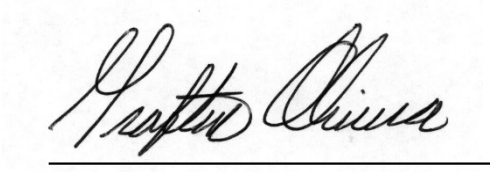
$$S = \frac{(33.4)F^2P}{R^2}$$

where, *S* = power density in uW/cm2, *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 23 meters on an existing, registered structure, ASRN 1298084. The power density at 2 meters above ground level at 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 3 kW (Hpol) and an antenna center of radiation height above ground level of 23 meters, is 9.1 microwatts per square centimeter (uW/cm2), or 2.3 % of the Commission's recommended limit applicable to uncontrolled exposure areas, 391.3 uW/cm2 for channel 33.

Since the RF exposure will be less than 5% of the FCC limits for uncontrolled environments, the proposal is believed to comply with the FCC limits for human exposure to RF radiation; since the antenna will be mounted on an existing registered tower, the proposal will comply with the FCC environmental rules.

The applicant will verify that access to the tower site is restricted and the site will be appropriately marked with RFR warning signs. In addition, in the event that workers or other authorized personnel need to enter the restricted area or 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.