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WAVK(FM) – 249C1 – Marathon, FL  
Application for Modification of Construction Permit

Exhibit 31

RF EXPOSURE STUDY

The proposed facility was examined for its compliance with F.C.C. Guidelines regarding human exposure to radiofrequency electromagnetic fields. The WAVK(FM) facility will be combined with WWUS(FM), 281C1, Big Pine Key, FL, WCNK(FM), 254C1, Key West, FL, WKYZ(FM) 269C1, Key Colony Beach, FL, and WKWM(FM), 218C3, Marathon, FL on a new tower utilizing a new directional antenna at the existing WWUS(FM) and WCNK(FM) site. The combined facility will utilize a Shively 6014-8/2-DA antenna. The antenna has an element spacing of 0.9 wavelength with a center of radiation 137 meters above ground. The combined facility ERP will be 412.2 kW (WAVK(FM) at 100 kW, WCNK(FM) at 100 kW, WWUS at 100 kW, WKYZ(FM) at 100 kW, and WKWM(FM) at 12.2 kW) in both the vertical and horizontal polarization planes.

The above parameters were entered into the F.C.C. OET FMMODEL computer program. The predicted maximum RF field density at two meters above ground is 9.1  $\mu\text{W}/\text{cm}^2$  at a horizontal distance of 64 meters from the base of the tower and decreases as the distance from the tower increases. This level is less than 5% of the maximum field allowed for uncontrolled (i.e. general population) exposure.

No other broadcast or high powered facilities are located at or near the site.

The tower will be fenced to prevent unauthorized access.

The applicant understands that fields in excess of the Guidelines exist on the tower in the vicinity of the antennas. The applicant will, in cooperation with other users

of the site, limit exposure to workers on the tower through reduction in power or cessation of operation.