

TECHNICAL SUMMARY
APPLICATION FOR MODIFICATION OF LICENSE
FM STATION WARO
NAPLES, FLORIDA
CH 233C0 (94.5 MHZ) 100 KW (ND) 311 M

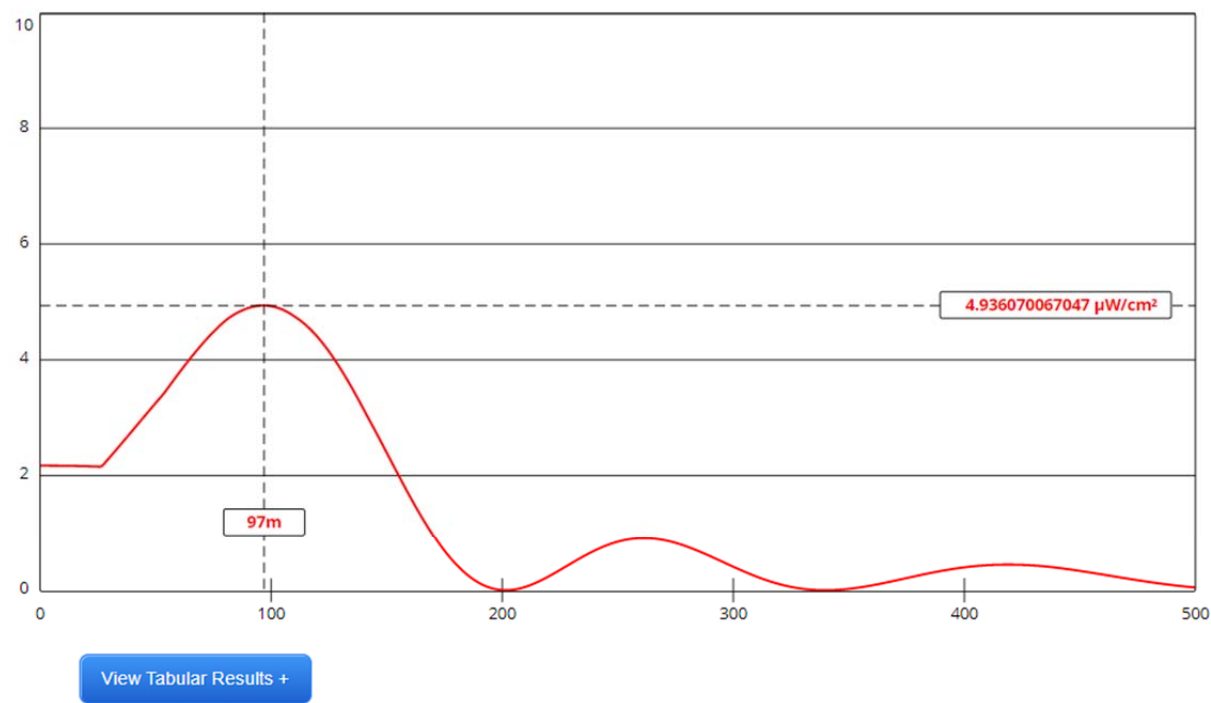
1. Compliance with Section 73.1690(c)(1): It is proposed to replace WARO's existing Harris model FMH-8AC3, 8-bay, 1-wavelength spaced nondirectional antenna with an ERI model SHPX-6AC, 6-bay, 1-wavelength spaced nondirectional antenna. The transmitter power output (TPO) will increase from 29.5 kW to 40 kW to compensate for the decrease in antenna power gain. There will be no change ERP (100 kW) or antenna height (RCAGL 306 meters, RCAMSL 311 meters).

2. RFR Compliance: The proposed WARO operation was evaluated in terms of potential radio frequency (RF) energy exposure at ground level. It is proposed to mount an ERI model SHPX-6AC, 6-bay, 1-wavelength spaced circularly polarized nondirectional antenna at the 306 meter level on the existing tower (ASRN 1030207). The total ERP for WARO will be 200 kW (H&V). Figure 1 depicts the output of the FCC's FM Model program. As indicated, a maximum power density of 4.94 uW/cm^2 will occur at a point located 97 meters from the tower base. This is only 2.5% of the FCC's recommended limit of 200 uW/cm^2 for FM frequencies for an uncontrolled environment. Thus, the proposed WARO operation is in compliance with the FCC's RFR limits.

A protocol shall be in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measures will be taken to assure worker safety with respect to RF energy exposure.

Figure 1

FM Model Output:



Channel Selection	Channel 233 (94.5 MHz) ▼		
Antenna Type +	EPA Type 3: Opposed U Dipole ▼		
Height (m)	<input type="text" value="306"/>	Distance (m)	<input type="text" value="500"/>
ERP-H (W)	<input type="text" value="100000"/>	ERP-V (W)	<input type="text" value="100000"/>
Num of Elements	<input type="text" value="6"/>	Element Spacing (λ)	<input type="text" value="1"/>
Num of Points	<input type="text" value="500"/>	<input type="button" value="Apply"/>	