

Engineering Statement
In support of
Application for Auxiliary License
WWWQ CH-263C2

5.0 KW 315 METERS

This statement and attached exhibit has been prepared on behalf of WNNX Lico, Inc., licensee of the above referenced FM radio station.

Determination of Transmitter Power Output

Antenna	Collins G5CPS-6AC	Gain	3.303
Antenna Input Power			1.5KW
Transmission Line	928 ft. Cablewave HC312-50	Loss	1.046 db
	89 ft. Andrew 561 rigid line	Loss	0.105 db
	30 ft. Andrew HJ5-50 7/8" Heliax	Loss	0.109 db
Transmitter	Bext FD-2000	Output	2.0 KW

Environmental Considerations

Utilization of the Commissions FM Model program shows the power density at 2 meters above ground level to be $0.122 \mu\text{W cm}^2$, the maximum power density was found to be located 91 meters from the tower base at $0.2788 \mu\text{W cm}^2$. Both of these predicted levels are far below 5 percent of the maximum permissible exposure (MPE) for either controlled or uncontrolled areas. The vertical plane relative field pattern for this antenna is attached as Figure 1.

ELECTRONICS RESEARCH, INC.
108 MARKET STREET
NEWBURGH, IN. 47630

VERTICAL PLANE RELATIVE FIELD

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FIGURE 10

6 BAYS WITH 0 DEGREES BEAM TILT
0 PERCENT FIRST NULL FILL
0 PERCENT SECOND NULL FILL

POWER GAIN IS 3.303 IN THE HORIZONTAL PLANE (3.303 IN THE MAX.)

FIGURE 1

