

Environmental Protection

The proposed facility is to be built using a 2-bay halfwaved spaced circularly polarized antenna.

As can be seen in Exhibit 24A, the maximum theoretical RF value would be $19.64\mu\text{W}/\text{cm}^2$ at a distance of 20 meters from the antenna, which is 9.8% of the $200\mu\text{W}/\text{cm}^2$ permitted for public (uncontrolled) exposure, and 2.0% of the $1000\mu\text{W}/\text{cm}^2$ permitted for worker (controlled) exposure.

Therefore, the proposed facility complies with the requirements of OET 65.

EMF will fully cooperate with other site users to temporarily reduce power or cease broadcasting, as necessary, to protect workers and others having access to the site from excessive levels of RF Radiation.

Specific Antenna RF Power Density Calculator

Based on Equation 10 of OET-65
Exhibit 24-A / Detailed Report

ERP	0.47 kW	% of OET-65
Height above ground	12.0 meters	9.8% Uncontrolled
Height above head	10.0 meters	2.0% Controlled
Antenna Brand Nicom		
Antenna Model BKG77-2HW		

Horizontal distance from tower (meters)	Angle (°)	Distance (m)	Field	Power (W)	Power Density (uW/cm2)
0	90	10.0	0.009	4.23	0.013
10	45	14.1	0.354	166.38	9.836
20	27	22.4	0.791	371.77	19.644
30	18	31.6	0.952	447.44	14.227
40	14	41.2	0.952	447.44	8.369
50	11	51.0	0.952	447.44	5.472
60	9	60.8	1	470	4.243
70	8	70.7	1	470	3.140
80	7	80.6	1	470	2.415
90	6	90.6	1	470	1.914
100	6	100.5	1	470	1.554

