

Environmental Protection

The proposed facility will utilize a one bay vertically polarized antenna mounted on a rooftop spire 8 meters above the highest rooftop. Access to the rooftop is a strictly controlled environment. The top floors of this building are mechanical rooms and radio transmitter rooms with no occupants.

Taking into account the vertical elevation pattern of the transmit antenna, and using a height above the roof of 2 meters, the height of a human being, the maximum theoretical RF value on the rooftop is $132.8\mu\text{W}/\text{cm}^2$ at a distance of 11 meters from the antenna. This is 13.3% of the $1000\mu\text{W}/\text{cm}^2$ permitted for a controlled environment.

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 17-A / Detailed Report

ERP 1.3 kW % of OET-65
Height above ground 8.0 meters 66.4% Uncontrolled
Height above head 6.0 meters 13.3% Controlled
Antenna Brand Scala
Antenna Model CLFM-V

Horizontal distance from tower (meters)	Angle (°)	Distance (m)	Field	Power (W)	Power Density (uW/cm2)
0	90	6.0	0.01	13	0.121
10	31	11.7	0.645	838.5	132.822
20	17	20.9	0.95	1235	89.877
30	11	30.6	0.95	1235	41.866
40	9	40.4	1	1300	26.540
50	7	50.4	1	1300	17.121
60	6	60.3	1	1300	11.942
70	5	70.3	1	1300	8.797
80	4	80.2	1	1300	6.746
90	4	90.2	1	1300	5.337
100	3	100.2	1	1300	4.326

