Educational Media Foundation
5700 West Oaks Boulevard
Rocklin, CA 95765

Environmental Protection

There are two main factors that need to be addressed in order to make sure that the environment around a proposed facility is protected.

1) Significant affects to the environment.

EMF's proposed facility will be constructed on an existing tower and will cause no adverse effects to the surrounding environment at the site.

2) Human exposure to excess levels of radiofrequency radiation.

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

According to OET 65, "Applicants and licensees should be able to calculate, based on considerations of frequency, power and antenna characteristics the distance from their transmitter where their signal produces an RF field equal to, or greater than, the 5% threshold limit. The applicant or licensee then shares responsibility for compliance in any accessible area or areas within this 5% "contour" where the appropriate limits are found to be exceeded."

As can be seen in Exhibit 22A, the proposed facility's maximum contribution to RF on the site is 9.285uW/cm^2 at a distance of 2 meters from the tower, which is 4.6% of the uncontrolled (public) exposure limit.

Therefore, because the proposed facility will not cause an RF field that is equal to or greater than 5% of the 200 uW/cm^2 limit for uncontrolled exposure at any point, 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.

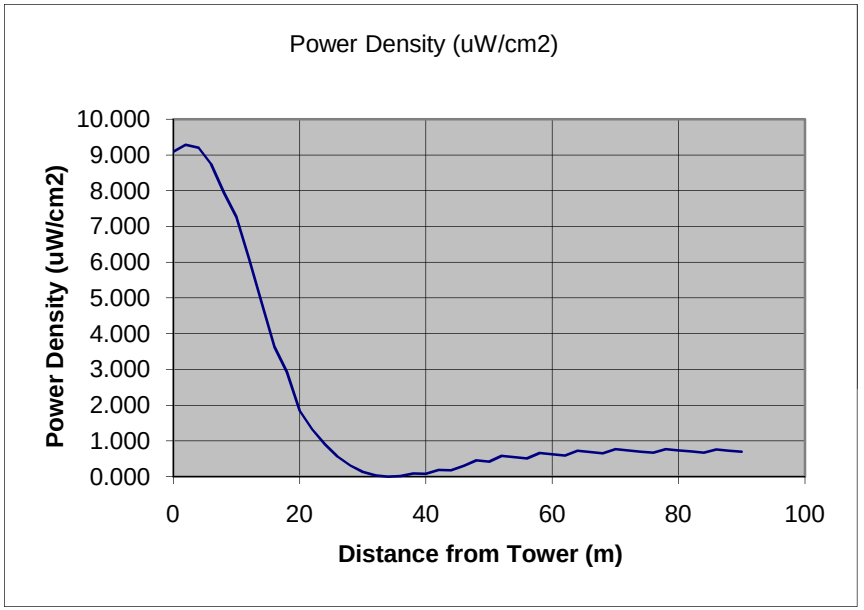
Specific Antenna RF Power Density Calculator

Based on Equation 10 of OET-65

Detailed Report

ERP	0.32 kW	% of OET-65
Height above ground	29.0 meters	4.6% Uncontrolled
Height above head	27.0 meters	0.9% Controlled
Antenna Brand	nicom	
Antenna Model	BKG 77/2	

Horizontal distance from tower (meters)	Angle (°)	Distance (m)	Field	Power (W)	Power Density (uW/cm2)
0	90	27.0	0.787	251.84	9.081
2	86	27.1	0.798	255.36	9.285
4	82	27.3	0.801	256.32	9.205
6	77	27.7	0.791	253.12	8.742
8	73	28.2	0.768	245.76	7.950
10	70	28.8	0.751	240.32	7.271
12	66	29.5	0.705	225.6	6.085
14	63	30.4	0.649	207.68	4.867
16	59	31.4	0.579	185.28	3.638
18	56	32.4	0.537	171.84	2.927
20	53	33.6	0.441	141.12	1.841
22	51	34.8	0.388	124.16	1.326
24	48	36.1	0.332	106.24	0.903
26	46	37.5	0.273	87.36	0.567
28	44	38.9	0.211	67.52	0.315
30	42	40.4	0.146	46.72	0.140
32	40	41.9	0.079	25.28	0.038
34	38	43.4	0.009	2.88	0.000
36	37	45.0	0.063	20.16	0.021
38	35	46.6	0.136	43.52	0.091
40	34	48.3	0.136	43.52	0.085
42	33	49.9	0.211	67.52	0.191
44	32	51.6	0.211	67.52	0.179
46	30	53.3	0.285	91.2	0.305
48	29	55.1	0.359	114.88	0.454
50	28	56.8	0.359	114.88	0.427



52	27	58.6	0.432	138.24	0.581
54	27	60.4	0.432	138.24	0.547
56	26	62.2	0.432	138.24	0.516
58	25	64.0	0.503	160.96	0.661
60	24	65.8	0.503	160.96	0.625
62	24	67.6	0.503	160.96	0.591
64	23	69.5	0.573	183.36	0.727
66	22	71.3	0.573	183.36	0.690
68	22	73.2	0.573	183.36	0.656
70	21	75.0	0.639	204.48	0.775
72	21	76.9	0.639	204.48	0.738
74	20	78.8	0.639	204.48	0.703
76	20	80.7	0.639	204.48	0.671
78	19	82.5	0.702	224.64	0.773
80	19	84.4	0.702	224.64	0.739
82	18	86.3	0.702	224.64	0.707
84	18	88.2	0.702	224.64	0.677
86	17	90.1	0.76	243.2	0.760
88	17	92.0	0.76	243.2	0.729
90	17	94.0	0.76	243.2	0.699