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 3-bay circularly polarized full wave spaced antenna.

As can be seen in Exhibit 24A, the maximum theoretical RF value would be 54.7uW/cm^2 at a distance of 11 meters from the tower, which is 27.3% of the 200 uW/cm^2 permitted for public (uncontrolled) exposure, and 5.5% of the 1000 uW/cm^2 permitted for worker (controlled) exposure.

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

EMF will fully cooperate with other future 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.

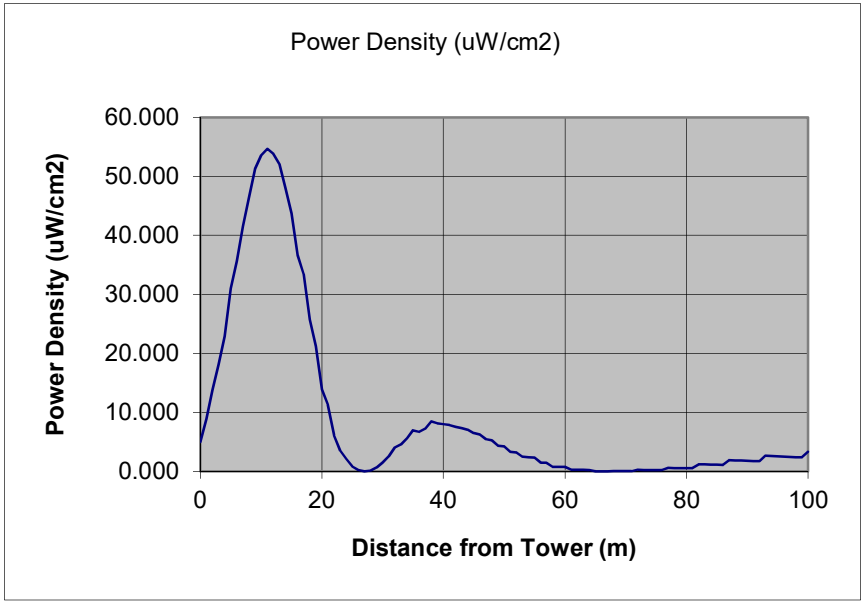
Specific Antenna RF Power Density Calculator

Based on Equation 10 of OET-65

Detailed Report

ERP	6	kW	% of OET-65	
Height above ground	26.0	meters	27.3%	Uncontrolled
Height above head	24.0	meters	5.5%	Controlled
Antenna Brand	**ERI**			
Antenna Model	**1105-3FW**			

Horizontal distance from tower (meters)	Angle (°)	Distance (m)	Field	Power (W)	Power Density (uW/cm2)
0	90	24.0	0.12	720	5.010
1	88	24.0	0.16	960	8.891
2	85	24.1	0.2	1200	13.821
3	83	24.2	0.23	1380	18.122
4	81	24.3	0.26	1560	22.884
5	78	24.5	0.305	1830	31.019
6	76	24.7	0.33	1980	35.659
7	74	25.0	0.36	2160	41.555
8	72	25.3	0.385	2310	46.413
9	69	25.6	0.41	2460	51.274
10	67	26.0	0.425	2550	53.546
11	65	26.4	0.436	2616	54.656
12	63	26.8	0.44	2640	53.885
13	62	27.3	0.44	2640	52.077
14	60	27.8	0.43	2580	47.997
15	58	28.3	0.418	2508	43.714
16	56	28.8	0.39	2340	36.636
17	55	29.4	0.38	2280	33.454
18	53	30.0	0.34	2040	25.740
19	52	30.6	0.315	1890	21.222
20	50	31.2	0.26	1560	13.880
21	49	31.9	0.24	1440	11.350
22	47	32.6	0.18	1080	6.125
23	46	33.2	0.14	840	3.555
24	45	33.9	0.11	660	2.105
25	44	34.7	0.07	420	0.818
26	43	35.4	0.04	240	0.256



27	42	36.1	0.001	6	0.000
28	41	36.9	0.03	180	0.133
29	40	37.6	0.07	420	0.693
30	39	38.4	0.105	630	1.497
31	38	39.2	0.14	840	2.556
32	37	40.0	0.18	1080	4.058
33	36	40.8	0.195	1170	4.577
34	35	41.6	0.22	1320	5.600
35	34	42.4	0.25	1500	6.954
36	34	43.3	0.25	1500	6.691
37	33	44.1	0.265	1590	7.236
38	32	44.9	0.292	1752	8.459
39	32	45.8	0.292	1752	8.148
40	31	46.6	0.295	1770	8.015
41	30	47.5	0.297	1782	7.832
42	30	48.4	0.297	1782	7.554
43	29	49.2	0.298	1788	7.339
44	29	50.1	0.298	1788	7.085
45	28	51.0	0.29	1740	6.480
46	28	51.9	0.29	1740	6.261
47	27	52.8	0.275	1650	5.442
48	27	53.7	0.275	1650	5.262
49	26	54.6	0.255	1530	4.377
50	26	55.5	0.255	1530	4.236
51	25	56.4	0.23	1380	3.337
52	25	57.3	0.23	1380	3.232
53	24	58.2	0.205	1230	2.488
54	24	59.1	0.205	1230	2.412
55	24	60.0	0.205	1230	2.339
56	23	60.9	0.166	996	1.488
57	23	61.8	0.166	996	1.444
58	22	62.8	0.125	750	0.795
59	22	63.7	0.125	750	0.772
60	22	64.6	0.125	750	0.750
61	21	65.6	0.08	480	0.298
62	21	66.5	0.08	480	0.290
63	21	67.4	0.08	480	0.282
64	21	68.4	0.08	480	0.275
65	20	69.3	0.02	120	0.017

66	20	70.2	0.02	120	0.016
67	20	71.2	0.02	120	0.016
68	19	72.1	0.025	150	0.024
69	19	73.1	0.025	150	0.023
70	19	74.0	0.025	150	0.023
71	19	74.9	0.025	150	0.022
72	18	75.9	0.09	540	0.282
73	18	76.8	0.09	540	0.275
74	18	77.8	0.09	540	0.268
75	18	78.7	0.09	540	0.262
76	18	79.7	0.09	540	0.256
77	17	80.7	0.14	840	0.604
78	17	81.6	0.14	840	0.590
79	17	82.6	0.14	840	0.576
80	17	83.5	0.14	840	0.563
81	17	84.5	0.14	840	0.550
82	16	85.4	0.21	1260	1.211
83	16	86.4	0.21	1260	1.184
84	16	87.4	0.21	1260	1.158
85	16	88.3	0.21	1260	1.133
86	16	89.3	0.21	1260	1.109
87	15	90.2	0.28	1680	1.929
88	15	91.2	0.28	1680	1.888
89	15	92.2	0.28	1680	1.849
90	15	93.1	0.28	1680	1.811
91	15	94.1	0.28	1680	1.774
92	15	95.1	0.28	1680	1.738
93	14	96.0	0.35	2100	2.661
94	14	97.0	0.35	2100	2.608
95	14	98.0	0.35	2100	2.557
96	14	99.0	0.35	2100	2.507
97	14	99.9	0.35	2100	2.459
98	14	100.9	0.35	2100	2.411
99	14	101.9	0.35	2100	2.366
100	13	102.8	0.42	2520	3.343