

Human exposure to excess levels of radiofrequency radiation

The proposed facility is to be built using a 1-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 17-A, the proposed facility's maximum contribution to RF on the site is $.466 \mu\text{W}/\text{cm}^2$ at a distance of 74 meters from the tower, which is 0.23% 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 $200 \mu\text{W}/\text{cm}^2$ 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.

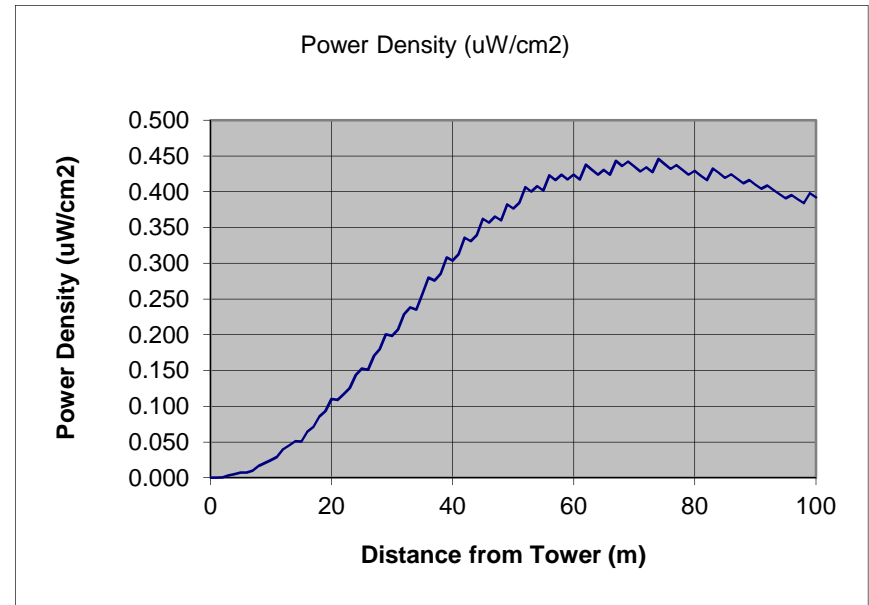
Specific Antenna RF Power Density Calculator

Based on Equation 10 of OET-65

Detailed Report

ERP	0.25 kW	% of OET-65
Height above ground	65.0 meters	0.2% Uncontrolled
Height above head	63.0 meters	0.0% Controlled
Antenna Brand RFS		
Antenna Model CPF500/1		

Horizontal distance from tower (meters)	Angle (°)	Distance (m)	Field	Power (W)	Power Density (uW/cm ²)
0	90	63.0	0	0	0.000
1	89	63.0	0.01	2.5	0.000
2	88	63.0	0.02	5	0.001
3	87	63.1	0.04	10	0.003
4	86	63.1	0.05	12.5	0.005
5	85	63.2	0.06	15	0.008
6	85	63.3	0.06	15	0.008
7	84	63.4	0.07	17.5	0.010
8	83	63.5	0.09	22.5	0.017
9	82	63.6	0.1	25	0.021
10	81	63.8	0.11	27.5	0.025
11	80	64.0	0.12	30	0.029
12	79	64.1	0.14	35	0.040
13	78	64.3	0.15	37.5	0.045
14	77	64.5	0.16	40	0.051
15	77	64.8	0.16	40	0.051
16	76	65.0	0.18	45	0.064
17	75	65.3	0.19	47.5	0.071
18	74	65.5	0.21	52.5	0.086
19	73	65.8	0.22	55	0.093
20	72	66.1	0.24	60	0.110
21	72	66.4	0.24	60	0.109
22	71	66.7	0.25	62.5	0.117
23	70	67.1	0.26	65	0.125
24	69	67.4	0.28	70	0.144
25	68	67.8	0.29	72.5	0.153



26	68	68.2	0.29	72.5	0.151
27	67	68.5	0.31	77.5	0.171
28	66	68.9	0.32	80	0.180
29	65	69.4	0.34	85	0.201
30	65	69.8	0.34	85	0.198
31	64	70.2	0.35	87.5	0.207
32	63	70.7	0.37	92.5	0.229
33	62	71.1	0.38	95	0.238
34	62	71.6	0.38	95	0.235
35	61	72.1	0.4	100	0.257
36	60	72.6	0.42	105	0.280
37	60	73.1	0.42	105	0.276
38	59	73.6	0.43	107.5	0.285
39	58	74.1	0.45	112.5	0.308
40	58	74.6	0.45	112.5	0.304
41	57	75.2	0.46	115	0.313
42	56	75.7	0.48	120	0.336
43	56	76.3	0.48	120	0.331
44	55	76.8	0.49	122.5	0.340
45	54	77.4	0.51	127.5	0.362
46	54	78.0	0.51	127.5	0.357
47	53	78.6	0.52	130	0.365
48	53	79.2	0.52	130	0.360
49	52	79.8	0.54	135	0.382
50	52	80.4	0.54	135	0.376
51	51	81.1	0.55	137.5	0.384
52	50	81.7	0.57	142.5	0.407
53	50	82.3	0.57	142.5	0.400
54	49	83.0	0.58	145	0.408
55	49	83.6	0.58	145	0.402
56	48	84.3	0.6	150	0.423
57	48	85.0	0.6	150	0.416
58	47	85.6	0.61	152.5	0.424
59	47	86.3	0.61	152.5	0.417
60	46	87.0	0.62	155	0.424
61	46	87.7	0.62	155	0.417
62	45	88.4	0.64	160	0.438
63	45	89.1	0.64	160	0.431

64	45	89.8	0.64	160	0.424
65	44	90.5	0.65	162.5	0.431
66	44	91.2	0.65	162.5	0.424
67	43	92.0	0.67	167.5	0.443
68	43	92.7	0.67	167.5	0.436
69	42	93.4	0.68	170	0.442
70	42	94.2	0.68	170	0.435
71	42	94.9	0.68	170	0.429
72	41	95.7	0.69	172.5	0.434
73	41	96.4	0.69	172.5	0.428
74	40	97.2	0.71	177.5	0.446
75	40	97.9	0.71	177.5	0.439
76	40	98.7	0.71	177.5	0.432
77	39	99.5	0.72	180	0.437
78	39	100.3	0.72	180	0.431
79	39	101.0	0.72	180	0.424
80	38	101.8	0.73	182.5	0.429
81	38	102.6	0.73	182.5	0.423
82	38	103.4	0.73	182.5	0.416
83	37	104.2	0.75	187.5	0.433
84	37	105.0	0.75	187.5	0.426
85	37	105.8	0.75	187.5	0.420
86	36	106.6	0.76	190	0.424
87	36	107.4	0.76	190	0.418
88	36	108.2	0.76	190	0.412
89	35	109.0	0.77	192.5	0.416
90	35	109.9	0.77	192.5	0.410
91	35	110.7	0.77	192.5	0.404
92	34	111.5	0.78	195	0.409
93	34	112.3	0.78	195	0.403
94	34	113.2	0.78	195	0.397
95	34	114.0	0.78	195	0.391
96	33	114.8	0.79	197.5	0.395
97	33	115.7	0.79	197.5	0.390
98	33	116.5	0.79	197.5	0.384
99	32	117.3	0.81	202.5	0.398
100	32	118.2	0.81	202.5	0.392