

### **Human exposure to excess levels of radiofrequency radiation**

The proposed facility is to be built using a 2-bay circularly polarized .75-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  $0.549\mu\text{W}/\text{cm}^2$  at a distance of 23 meters from the tower, which is 0.275% 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.

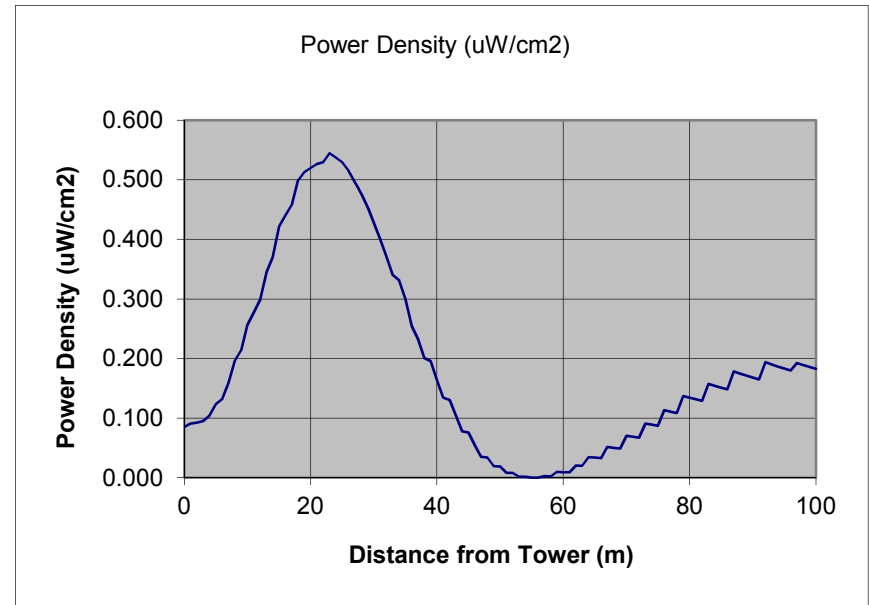
## Specific Antenna RF Power Density Calculator

Based on Equation 10 of OET-65

### Detailed Report

<b>ERP</b>	1 kW	% of OET-65
<b>Height above ground</b>	24.0 meters	0.3% Uncontrolled
<b>Height above head</b>	36.0 meters	0.1% Controlled
<b>Antenna Brand Nicom</b>		
<b>Antenna Model BKG77-2-.75</b>		

Horizontal distance from tower (meters)	Angle (°)	Distance (m)	Field	Power (W)	Power Density (uW/cm <sup>2</sup> )
0	90	36.0	0.115	28.75	0.085
1	88	36.0	0.119	29.75	0.091
2	87	36.1	0.12	30	0.092
3	85	36.1	0.122	30.5	0.095
4	84	36.2	0.128	32	0.104
5	82	36.3	0.14	35	0.124
6	81	36.5	0.145	36.25	0.132
7	79	36.7	0.16	40	0.159
8	77	36.9	0.179	44.75	0.197
9	76	37.1	0.188	47	0.214
10	74	37.4	0.207	51.75	0.256
11	73	37.6	0.217	54.25	0.277
12	72	37.9	0.227	56.75	0.299
13	70	38.3	0.246	61.5	0.345
14	69	38.6	0.257	64.25	0.370
15	67	39.0	0.277	69.25	0.421
16	66	39.4	0.286	71.5	0.440
17	65	39.8	0.295	73.75	0.458
18	63	40.2	0.311	77.75	0.499
19	62	40.7	0.319	79.75	0.513
20	61	41.2	0.325	81.25	0.520
21	60	41.7	0.331	82.75	0.527
22	59	42.2	0.336	84	0.530
23	57	42.7	0.345	86.25	0.545
24	56	43.3	0.347	86.75	0.537
25	55	43.8	0.349	87.25	0.529



26	54	44.4	0.349	87.25	0.516
27	53	45.0	0.347	86.75	0.497
28	52	45.6	0.345	86.25	0.478
29	51	46.2	0.341	85.25	0.454
30	50	46.9	0.336	84	0.429
31	49	47.5	0.329	82.25	0.400
32	48	48.2	0.321	80.25	0.371
33	47	48.8	0.312	78	0.341
34	47	49.5	0.312	78	0.331
35	46	50.2	0.301	75.25	0.300
36	45	50.9	0.281	70.25	0.254
37	44	51.6	0.273	68.25	0.234
38	43	52.3	0.257	64.25	0.201
39	43	53.1	0.257	64.25	0.196
40	42	53.8	0.239	59.75	0.165
41	41	54.6	0.219	54.75	0.135
42	41	55.3	0.219	54.75	0.131
43	40	56.1	0.198	49.5	0.104
44	39	56.9	0.174	43.5	0.078
45	39	57.6	0.174	43.5	0.076
46	38	58.4	0.149	37.25	0.054
47	37	59.2	0.121	30.25	0.035
48	37	60.0	0.121	30.25	0.034
49	36	60.8	0.093	23.25	0.020
50	36	61.6	0.093	23.25	0.019
51	35	62.4	0.062	15.5	0.008
52	35	63.2	0.062	15.5	0.008
53	34	64.1	0.03	7.5	0.002
54	34	64.9	0.03	7.5	0.002
55	33	65.7	0.001	0.25	0.000
56	33	66.6	0.001	0.25	0.000
57	32	67.4	0.038	9.5	0.003
58	32	68.3	0.038	9.5	0.003
59	31	69.1	0.075	18.75	0.010
60	31	70.0	0.075	18.75	0.010
61	31	70.8	0.075	18.75	0.009
62	30	71.7	0.112	28	0.020
63	30	72.6	0.112	28	0.020

64	29	73.4	0.15	37.5	0.035
65	29	74.3	0.15	37.5	0.034
66	29	75.2	0.15	37.5	0.033
67	28	76.1	0.189	47.25	0.052
68	28	76.9	0.189	47.25	0.050
69	28	77.8	0.189	47.25	0.049
70	27	78.7	0.229	57.25	0.071
71	27	79.6	0.229	57.25	0.069
72	27	80.5	0.229	57.25	0.068
73	26	81.4	0.269	67.25	0.091
74	26	82.3	0.269	67.25	0.089
75	26	83.2	0.269	67.25	0.087
76	25	84.1	0.31	77.5	0.113
77	25	85.0	0.31	77.5	0.111
78	25	85.9	0.31	77.5	0.109
79	24	86.8	0.352	88	0.137
80	24	87.7	0.352	88	0.134
81	24	88.6	0.352	88	0.132
82	24	89.6	0.352	88	0.129
83	23	90.5	0.393	98.25	0.158
84	23	91.4	0.393	98.25	0.154
85	23	92.3	0.393	98.25	0.151
86	23	93.2	0.393	98.25	0.148
87	22	94.2	0.435	108.75	0.178
88	22	95.1	0.435	108.75	0.175
89	22	96.0	0.435	108.75	0.171
90	22	96.9	0.435	108.75	0.168
91	22	97.9	0.435	108.75	0.165
92	21	98.8	0.476	119	0.194
93	21	99.7	0.476	119	0.190
94	21	100.7	0.476	119	0.187
95	21	101.6	0.476	119	0.183
96	21	102.5	0.476	119	0.180
97	20	103.5	0.497	124.25	0.193
98	20	104.4	0.497	124.25	0.189
99	20	105.3	0.497	124.25	0.186
100	20	106.3	0.497	124.25	0.183