

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, therefore it should have no adverse effect on the surrounding environment.

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.

As can be seen in Exhibit 22-A, the maximum theoretical RF value would be 82.60 $\mu\text{W}/\text{cm}^2$ at a distance of 5 meters from the tower, which is 41.30% of the 200 $\mu\text{W}/\text{cm}^2$ permitted for public (uncontrolled) exposure, and 8.26% of the 1000 $\mu\text{W}/\text{cm}^2$ 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.

Exhibit 22-A

RF Analysis: NEW.P 206A Round Lake Beach, IL

NEW.P

Site type: Proposed

Channel: 206

Class: A

ERP: 1.9kw

Antenna: ERI

Type 1

2-bay

full wave

COR AGL: 27m

Polarization: Vertical

Distance From Tower (m)	NEW.P Facility	Total RF (uW/cm2)	Percent of 200uW/cm2
0	70.5318	70.53	35.27
1	71.9032	71.90	35.95
2	73.0773	73.08	36.54
3	76.0066	76.01	38.00
4	79.8372	79.84	39.92
5	82.5985	82.60	41.30
6	82.5259	82.53	41.26
7	82.0885	82.09	41.04
8	81.0020	81.00	40.50
9	79.4493	79.45	39.72
10	77.6941	77.69	38.85
11	76.3886	76.39	38.19
12	74.6195	74.62	37.31
13	71.7571	71.76	35.88
14	67.6928	67.69	33.85
15	63.4704	63.47	31.74
16	59.5524	59.55	29.78
17	56.0504	56.05	28.03
18	52.3895	52.39	26.19
19	48.5285	48.53	24.26
20	43.7838	43.78	21.89
21	39.2625	39.26	19.63
22	34.9927	34.99	17.50
23	30.9940	30.99	15.50
24	27.2794	27.28	13.64
25	23.8575	23.86	11.93
26	20.7291	20.73	10.36
27	17.8897	17.89	8.94
28	15.1247	15.12	7.56
29	12.6968	12.70	6.35
30	10.5783	10.58	5.29
31	8.7414	8.74	4.37
32	7.1590	7.16	3.58
33	6.0499	6.05	3.02
34	5.0907	5.09	2.55
35	4.2203	4.22	2.11
36	3.4402	3.44	1.72
37	2.7504	2.75	1.38
38	2.1489	2.15	1.07
39	1.6150	1.61	0.81
40	1.1569	1.16	0.58
41	0.7926	0.79	0.40
42	0.5107	0.51	0.26
43	0.3007	0.30	0.15
44	0.1529	0.15	0.08
45	0.0588	0.06	0.03

Distance From Tower (m)	NEW.P Facility	Total RF (uW/cm2)	Percent of 200uW/cm2
46	0.0104	0.01	0.01
47	0.0009	0.00	0.00
48	0.0240	0.02	0.01
49	0.0740	0.07	0.04
50	0.1459	0.15	0.07
51	0.2354	0.24	0.12
52	0.3386	0.34	0.17
53	0.4524	0.45	0.23
54	0.5739	0.57	0.29
55	0.7007	0.70	0.35
56	0.8308	0.83	0.42
57	0.9625	0.96	0.48
58	1.0939	1.09	0.55
59	1.2206	1.22	0.61
60	1.3445	1.34	0.67
61	1.4649	1.46	0.73
62	1.5812	1.58	0.79
63	1.6929	1.69	0.85
64	1.7996	1.80	0.90
65	1.9012	1.90	0.95
66	1.9975	2.00	1.00
67	2.0885	2.09	1.04
68	2.1740	2.17	1.09
69	2.2541	2.25	1.13
70	2.3289	2.33	1.16
71	2.3985	2.40	1.20
72	2.4630	2.46	1.23
73	2.5226	2.52	1.26
74	2.5774	2.58	1.29
75	2.6253	2.63	1.31
76	2.6682	2.67	1.33
77	2.7069	2.71	1.35
78	2.7415	2.74	1.37
79	2.7722	2.77	1.39
80	2.7993	2.80	1.40
81	2.8228	2.82	1.41
82	2.8430	2.84	1.42
83	2.8601	2.86	1.43
84	2.8743	2.87	1.44
85	2.8857	2.89	1.44
86	2.8945	2.89	1.45
87	2.9008	2.90	1.45
88	2.9049	2.90	1.45
89	2.9068	2.91	1.45
90	2.9067	2.91	1.45
91	2.9047	2.90	1.45
92	2.9010	2.90	1.45
93	2.8957	2.90	1.45
94	2.8888	2.89	1.44
95	2.8806	2.88	1.44
96	2.8710	2.87	1.44
97	2.8602	2.86	1.43
98	2.8483	2.85	1.42
99	2.8354	2.84	1.42
100	2.8216	2.82	1.41