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 (tower ID 1013621), 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 7-bay circularly polarized 0.86-wave spaced antenna.

As can be seen in Exhibit 24-A, the maximum theoretical RF value would be 32.82 $\mu W/cm^2$ at a distance of 18 meters from the tower, which is 16.41% of the 200 $\mu W/cm^2$ permitted for public (uncontrolled) exposure, and 3.28% of the 1000 $\mu W/cm^2$ 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 24-A
RF Analysis: WCAD San Juan, PR

WCAD.P
Site type: Proposed
Channel: 289
Class: B
ERP: 50kw
Antenna: DIE
EPA Type 7
7 bay
0.86 wave space
COR AGL: 36m
Polorization: Circular

Distance From Tower (m)	WCAD.P Facility	Total RF (uW/cm2)	Percent of 200uW/cm2
0	14.2401	14.24	7.12
1	14.4360	14.44	7.22
2	13.9773	13.98	6.99
3	13.0453	13.05	6.52
4	12.6718	12.67	6.34
5	11.4007	11.40	5.70
6	9.4478	9.45	4.72
7	7.2473	7.25	3.62
8	4.5406	4.54	2.27
9	1.9786	1.98	0.99
10	0.2964	0.30	0.15
11	0.1937	0.19	0.10
12	2.2367	2.24	1.12
13	6.5326	6.53	3.27
14	12.6514	12.65	6.33
15	19.6539	19.65	9.83
16	26.1696	26.17	13.08
17	30.8775	30.88	15.44
18	**32.8240**	**32.82**	**16.41**
19	31.5594	31.56	15.78
20	27.2263	27.23	13.61
21	20.8146	20.81	10.41
22	13.6240	13.62	6.81
23	7.0576	7.06	3.53
24	2.3040	2.30	1.15
25	0.1188	0.12	0.06
26	0.6389	0.64	0.32
27	3.4438	3.44	1.72
28	7.6941	7.69	3.85
29	12.3348	12.33	6.17
30	16.3835	16.38	8.19
31	19.0805	19.08	9.54
32	20.0084	20.01	10.00
33	19.1211	19.12	9.56
34	16.6768	16.68	8.34
35	13.2137	13.21	6.61
36	9.3479	9.35	4.67
37	5.6828	5.68	2.84
38	2.7158	2.72	1.36
39	0.7782	0.78	0.39
40	0.0136	0.01	0.01
41	0.3855	0.39	0.19
42	1.7094	1.71	0.85
43	3.7051	3.71	1.85
44	6.0485	6.05	3.02
45	8.4188	8.42	4.21

Distance From Tower (m)	WCAD.P Facility	Total RF (uW/cm2)	Percent of 200uW/cm2
46	10.5357	10.54	5.27
47	12.1841	12.18	6.09
48	13.2093	13.21	6.60
49	13.5687	13.57	6.78
50	13.2822	13.28	6.64
51	12.4255	12.43	6.21
52	11.1156	11.12	5.56
53	9.4935	9.49	4.75
54	7.7082	7.71	3.85
55	5.9030	5.90	2.95
56	4.2050	4.21	2.10
57	2.7182	2.72	1.36
58	1.5177	1.52	0.76
59	0.6550	0.65	0.33
60	0.1507	0.15	0.08
61	0.0006	0.00	0.00
62	0.1806	0.18	0.09
63	0.6509	0.65	0.33
64	1.3611	1.36	0.68
65	2.2542	2.25	1.13
66	3.2710	3.27	1.64
67	4.3534	4.35	2.18
68	5.4471	5.45	2.72
69	6.5033	6.50	3.25
70	7.4806	7.48	3.74
71	8.3437	8.34	4.17
72	9.0628	9.06	4.53
73	9.6261	9.63	4.81
74	10.0243	10.02	5.01
75	10.2550	10.25	5.13
76	10.3217	10.32	5.16
77	10.2328	10.23	5.12
78	10.0010	10.00	5.00
79	9.6418	9.64	4.82
80	9.1727	9.17	4.59
81	8.6127	8.61	4.31
82	7.9814	7.98	3.99
83	7.2980	7.30	3.65
84	6.5813	6.58	3.29
85	5.8490	5.85	2.92
86	5.1176	5.12	2.56
87	4.4018	4.40	2.20
88	3.7145	3.71	1.86
89	3.0671	3.07	1.53
90	2.4687	2.47	1.23
91	1.9266	1.93	0.96
92	1.4464	1.45	0.72
93	1.0332	1.03	0.52
94	0.6894	0.69	0.34
95	0.4160	0.42	0.21
96	0.2127	0.21	0.11
97	0.0782	0.08	0.04
98	0.0102	0.01	0.01
99	0.0055	0.01	0.00
100	0.0606	0.06	0.03