

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 is 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 has been built using a 3-bay vertically polarized full-wave spaced antenna.

As can be seen in Exhibit 24-A, the maximum theoretical RF value would be 96.04 $\mu\text{W}/\text{cm}^2$ at a distance of 5 meters from the tower, which is 48.02% of the 200 $\mu\text{W}/\text{cm}^2$ permitted for public (uncontrolled) exposure, and 9.06% 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 24-A
RF Analysis: KLCQ, Durango, CO

KLCQ.P

Site type: Proposed

Channel: 203

Class: A

ERP: 4 kw

Antenna: NIC

vertical dipole

3 bay

full wave

COR AGL: 11 m

Polarization: vertical

Distance From Tower (m)	KLCQ.P Facility	Total RF (uW/cm2)	Percent of 200uW/cm2
0	21.6473	21.65	10.82
1	28.5088	28.51	14.25
2	41.7760	41.78	20.89
3	63.1950	63.20	31.60
4	74.4162	74.42	37.21
5	96.0434	96.04	48.02
6	91.1983	91.20	45.60
7	76.9027	76.90	38.45
8	57.2049	57.20	28.60
9	36.1329	36.13	18.07
10	17.2261	17.23	8.61
11	5.0719	5.07	2.54
12	0.2391	0.24	0.12
13	1.1302	1.13	0.57
14	5.3663	5.37	2.68
15	10.5916	10.59	5.30
16	15.2379	15.24	7.62
17	18.5434	18.54	9.27
18	20.1485	20.15	10.07
19	20.1661	20.17	10.08
20	18.7591	18.76	9.38
21	16.5352	16.54	8.27
22	13.8912	13.89	6.95
23	11.1413	11.14	5.57
24	8.5087	8.51	4.25
25	6.1506	6.15	3.08
26	4.1650	4.17	2.08
27	2.5857	2.59	1.29
28	1.4110	1.41	0.71
29	0.6156	0.62	0.31
30	0.1610	0.16	0.08
31	0.0015	0.00	0.00
32	0.0896	0.09	0.04
33	0.3778	0.38	0.19
34	0.8227	0.82	0.41
35	1.3857	1.39	0.69
36	2.0333	2.03	1.02
37	2.7372	2.74	1.37
38	3.4738	3.47	1.74
39	4.2238	4.22	2.11
40	4.9718	4.97	2.49
41	5.7056	5.71	2.85
42	6.4072	6.41	3.20
43	7.0764	7.08	3.54
44	7.7090	7.71	3.85
45	8.3020	8.30	4.15

Distance From Tower (m)	KLCQ.P Facility	Total RF (uW/cm2)	Percent of 200uW/cm2
46	8.8533	8.85	4.43
47	9.3624	9.36	4.68
48	9.8291	9.83	4.91
49	10.2541	10.25	5.13
50	10.6385	10.64	5.32
51	10.9838	10.98	5.49
52	11.2916	11.29	5.65
53	11.5638	11.56	5.78
54	11.8023	11.80	5.90
55	12.0092	12.01	6.00
56	12.1864	12.19	6.09
57	12.3359	12.34	6.17
58	12.4597	12.46	6.23
59	12.5596	12.56	6.28
60	12.6374	12.64	6.32
61	12.6948	12.69	6.35
62	12.7335	12.73	6.37
63	12.7500	12.75	6.37
64	12.7477	12.75	6.37
65	12.7313	12.73	6.37
66	12.7021	12.70	6.35
67	12.6613	12.66	6.33
68	12.6099	12.61	6.30
69	12.5491	12.55	6.27
70	12.4797	12.48	6.24
71	12.4026	12.40	6.20
72	12.3187	12.32	6.16
73	12.2287	12.23	6.11
74	12.1332	12.13	6.07
75	12.0330	12.03	6.02
76	11.9286	11.93	5.96
77	11.8206	11.82	5.91
78	11.7094	11.71	5.85
79	11.5954	11.60	5.80
80	11.4792	11.48	5.74
81	11.3610	11.36	5.68
82	11.2413	11.24	5.62
83	11.1202	11.12	5.56
84	10.9982	11.00	5.50
85	10.8754	10.88	5.44
86	10.7522	10.75	5.38
87	10.6287	10.63	5.31
88	10.5050	10.51	5.25
89	10.3815	10.38	5.19
90	10.2582	10.26	5.13
91	10.1353	10.14	5.07
92	10.0130	10.01	5.01
93	9.8912	9.89	4.95
94	9.7702	9.77	4.89
95	9.6501	9.65	4.83
96	9.5308	9.53	4.77
97	9.4126	9.41	4.71
98	9.2953	9.30	4.65
99	9.1792	9.18	4.59
100	9.0643	9.06	4.53