

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 1249849) and will cause no adverse effects to the surrounding environment at the site.

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 on the same site as the following:

Call	Channel	Status	City, ST	FIN	Licensee
KLJV	202 A	LIC	SCOTTSBLUFF, NE	121887	EDUCATIONAL MEDIA FOUNDATION
K218DL	218 D	LIC	SCOTTSBLUFF, NE	106587	EDUCATIONAL MEDIA FOUNDATION

See Exhibit 22-A for antennas that were specified by each licensee/permittee.

As can be seen in Exhibit 22A, the maximum theoretical RF value overall would be 41.01 $\mu\text{W}/\text{cm}^2$ at a distance of 10 meters from the tower, which is 20.50% of the 200 $\mu\text{W}/\text{cm}^2$ permitted for public (uncontrolled) exposure, and 4.10% 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.

RF Analysis: Scottsbluff, NE

KDAI		
206		
C3		
KDAI	KLJV	K218DL
Site type: Application	LIC	LIC
Channel: 206	202	218
Class: C3	A	D
ERP: 1.2 kw	0.39 kw	0.023 kw
Antenna: Nicom	Nicom	Nicom
2 bay	2 bay	1 bay
full wave	full wave	full wave
COR AGL: 38 m	46 m	38 m
Polarization: circular	circular	circular

Distance From Tower (m)	KDAI Facility	KLJV Facility	K218DL Facility	Total RF (uW/cm2)	Percent of 200uW/cm2
0	27.7646	6.1578	0.5322	34.45	17.23
1	28.2425	6.2459	0.5413	35.03	17.51
2	28.6838	6.3286	0.5498	35.56	17.78
3	29.0850	6.4054	0.5575	36.05	18.02
4	29.9628	6.4758	0.5745	37.01	18.51
5	31.0488	6.6773	0.5955	38.32	19.16
6	32.0844	6.8760	0.6159	39.58	19.79
7	32.8315	7.0670	0.6310	40.53	20.26
8	32.9790	7.2492	0.6350	40.86	20.43
9	33.0526	7.2977	0.6381	40.99	20.49
10	33.0473	7.3202	0.6402	41.01	20.50
11	32.8857	7.3312	0.6401	40.86	20.43
12	32.6242	7.3303	0.6388	40.59	20.30
13	32.2772	7.3057	0.6367	40.22	20.11
14	31.8833	7.2631	0.6346	39.78	19.89
15	31.5888	7.2078	0.6356	39.43	19.72
16	31.1942	7.1394	0.6356	38.97	19.48
17	30.7007	7.0689	0.6349	38.40	19.20
18	30.0208	7.0158	0.6314	37.67	18.83
19	29.0365	6.9474	0.6225	36.61	18.30
20	27.9963	6.8640	0.6133	35.47	17.74
21	26.9077	6.7659	0.6038	34.28	17.14
22	25.7872	6.6212	0.5943	33.00	16.50
23	24.7632	6.4399	0.5876	31.79	15.90
24	23.6969	6.2501	0.5806	30.53	15.26
25	22.5971	6.0529	0.5732	29.22	14.61
26	21.4731	5.8490	0.5655	27.89	13.94
27	20.2502	5.6512	0.5552	26.46	13.23
28	18.9141	5.4618	0.5415	24.92	12.46
29	17.6105	5.2661	0.5279	23.40	11.70
30	16.3449	5.0653	0.5147	21.92	10.96
31	15.1220	4.8605	0.5016	20.48	10.24
32	13.9490	4.6529	0.4890	19.09	9.55
33	12.8479	4.4133	0.4774	17.74	8.87
34	11.7949	4.1695	0.4661	16.43	8.22
35	10.7922	3.9306	0.4550	15.18	7.59
36	9.8413	3.6974	0.4441	13.98	6.99
37	8.9431	3.4705	0.4335	12.85	6.42
38	8.0981	3.2505	0.4231	11.77	5.89
39	7.2744	3.0397	0.4111	10.73	5.36
40	6.5112	2.8391	0.3996	9.75	4.87
41	5.8063	2.6458	0.3885	8.84	4.42
42	5.1574	2.4600	0.3778	8.00	4.00
43	4.5621	2.2821	0.3675	7.21	3.61
44	4.0176	2.1120	0.3575	6.49	3.24
45	3.5213	1.9500	0.3479	5.82	2.91

Distance From Tower (m)	KDAI Facility	KLJV Facility	K218DL Facility	Total RF (uW/cm2)	Percent of 200uW/cm2
46	3.1195	1.7960	0.3440	5.26	2.63
47	2.7637	1.6442	0.3422	4.75	2.37
48	2.4316	1.5015	0.3401	4.27	2.14
49	2.1235	1.3678	0.3379	3.83	1.91
50	1.8394	1.2427	0.3355	3.42	1.71
51	1.5790	1.1260	0.3330	3.04	1.52
52	1.3419	1.0173	0.3303	2.69	1.34
53	1.1276	0.9164	0.3276	2.37	1.19
54	0.9352	0.8228	0.3247	2.08	1.04
55	0.7562	0.7388	0.3185	1.81	0.91
56	0.5987	0.6708	0.3112	1.58	0.79
57	0.4641	0.6063	0.3042	1.37	0.69
58	0.3505	0.5455	0.2974	1.19	0.60
59	0.2561	0.4883	0.2907	1.04	0.52
60	0.1791	0.4347	0.2843	0.90	0.45
61	0.1180	0.3847	0.2780	0.78	0.39
62	0.0711	0.3383	0.2719	0.68	0.34
63	0.0372	0.2955	0.2660	0.60	0.30
64	0.0149	0.2560	0.2602	0.53	0.27
65	0.0029	0.2199	0.2546	0.48	0.24
66	0.0001	0.1864	0.2492	0.44	0.22
67	0.0056	0.1550	0.2444	0.40	0.20
68	0.0183	0.1272	0.2396	0.39	0.19
69	0.0374	0.1029	0.2350	0.38	0.19
70	0.0622	0.0818	0.2305	0.37	0.19
71	0.0919	0.0636	0.2261	0.38	0.19
72	0.1258	0.0482	0.2219	0.40	0.20
73	0.1634	0.0352	0.2177	0.42	0.21
74	0.2040	0.0246	0.2136	0.44	0.22
75	0.2473	0.0162	0.2097	0.47	0.24
76	0.2926	0.0097	0.2058	0.51	0.25
77	0.3397	0.0050	0.2021	0.55	0.27
78	0.3882	0.0019	0.1984	0.59	0.29
79	0.4376	0.0003	0.1948	0.63	0.32
80	0.4877	0.0001	0.1913	0.68	0.34
81	0.5382	0.0011	0.1879	0.73	0.36
82	0.5879	0.0032	0.1843	0.78	0.39
83	0.6361	0.0063	0.1804	0.82	0.41
84	0.6838	0.0103	0.1766	0.87	0.44
85	0.7308	0.0151	0.1729	0.92	0.46
86	0.7770	0.0207	0.1693	0.97	0.48
87	0.8222	0.0269	0.1659	1.01	0.51
88	0.8663	0.0336	0.1625	1.06	0.53
89	0.9093	0.0409	0.1592	1.11	0.55
90	0.9512	0.0485	0.1561	1.16	0.58
91	0.9917	0.0566	0.1530	1.20	0.60
92	1.0310	0.0649	0.1500	1.25	0.62
93	1.0690	0.0735	0.1471	1.29	0.64
94	1.1056	0.0823	0.1442	1.33	0.67
95	1.1409	0.0913	0.1415	1.37	0.69
96	1.1748	0.1004	0.1388	1.41	0.71
97	1.2073	0.1096	0.1362	1.45	0.73
98	1.2385	0.1189	0.1337	1.49	0.75
99	1.2683	0.1280	0.1312	1.53	0.76
100	1.2967	0.1369	0.1288	1.56	0.78