

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 in an established "antenna farm". The site proposed herein has both registered and unregistered towers on the site. According to 47 C.F.R. Section 1.1306 Note 3, such facilities "will be categorically excluded" from environmental processing except for the RF requirements of Section 1.1307(b).

2) Human exposure to excess levels of radiofrequency radiation.

The proposed facility is to be built using a 1-bay circularly polarized antenna within 200 meters of the following facilities:

Status	Call	Licensee/Permittee	Channel	City	FIN
LIC	KOHR	Hi-Line Radio Fellowship, Inc.	205A	Sheridan, WY	89342
LIC	KYTI	Lovcom, Inc.	229C	Sheridan, WY	12931
LIC	KZWY	Lovcom, Inc.	235C	Sheridan, WY	38627
CP	KLQQ	Lovcom, Inc.	285C0	Clearmont, WY	165310

Since the tower specified in this application is very close to these other facilities, the study was run with a "worst-case" scenario of having all of the facilities collocated and operational (three of the facilities are auxiliary stations).

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

As can be seen in Exhibit 22-A, the maximum theoretical RF value would be 79.49 $\mu\text{W}/\text{cm}^2$ at a distance of 6 meters from the tower, which is 39.75% of the 200 $\mu\text{W}/\text{cm}^2$ permitted for public (uncontrolled) exposure, and 7.95% 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: KVLZ Sheridan, WY

KVLZ.P	KOHR	KYTI	KZWH	KLQQ
Site type: Proposed	License	License	License	CP
Channel: 210	205	229	235	285
Class: A	A	C	C	C0
ERP: 0.15 kw	0.5 kw	0.3 kw	0.3 kw	0.3 kw
Antenna: BKG-77	BKG1P	JAM	JAM	SHI
EPA Type 2	EPA type 1	EPA type 3	EPA type 3	EPA type 6
1 bay	1 bay	1 bay	1 bay	1 bay
COR AGL: 6m	73m	67 m	71 m	69 m
Polarization: circular	vertical	circular	circular	circular

Distance From Tower (m)	KVLZ.P Facility	KOHR Facility	KYTI Facility	KZWH Facility	KLQQ Facility	Total RF (uW/cm2)	Percent of 200uW/cm2
0	19.4923	2.5391	0.1340	0.1193	0.0211	22.31	11.15
1	26.3120	2.5582	0.1339	0.1193	0.0234	29.15	14.57
2	41.3267	2.5763	0.1338	0.1192	0.0259	44.18	22.09
3	57.4513	2.5935	0.1337	0.1191	0.0285	60.33	30.16
4	68.2872	2.6097	0.1335	0.1189	0.0314	71.18	35.59
5	71.8577	2.6250	0.1332	0.1187	0.0344	74.77	37.38
6	76.5640	2.6393	0.1347	0.1184	0.0375	79.49	39.75
7	75.6669	2.6778	0.1478	0.1270	0.0443	78.66	39.33
8	71.2265	2.7313	0.1614	0.1382	0.0520	74.31	37.15
9	65.7984	2.7841	0.1753	0.1498	0.0605	68.97	34.48
10	60.2291	2.8359	0.1897	0.1617	0.0698	63.49	31.74
11	54.8660	2.8868	0.2043	0.1738	0.0798	58.21	29.11
12	49.9020	2.9366	0.2198	0.1863	0.0904	53.34	26.67
13	45.3918	2.9797	0.2379	0.2000	0.1062	48.92	24.46
14	41.1761	2.9834	0.2565	0.2153	0.1239	44.76	22.38
15	37.4610	2.9860	0.2755	0.2310	0.1429	41.10	20.55
16	34.1830	2.9874	0.2948	0.2470	0.1629	37.88	18.94
17	31.0476	2.9877	0.3144	0.2632	0.1840	34.80	17.40
18	28.1124	2.9869	0.3342	0.2797	0.2060	31.92	15.96
19	25.5610	2.9851	0.3529	0.2964	0.2254	29.42	14.71
20	23.3316	2.9800	0.3716	0.3121	0.2420	27.24	13.62
21	21.3738	2.9714	0.3903	0.3278	0.2588	25.32	12.66
22	19.6465	2.9618	0.4091	0.3436	0.2758	23.64	11.82
23	18.0464	2.9512	0.4278	0.3593	0.2929	22.08	11.04
24	16.5913	2.9398	0.4464	0.3751	0.3101	20.66	10.33
25	15.3027	2.9275	0.4659	0.3907	0.3273	19.41	9.71
26	14.1566	2.9143	0.4859	0.4065	0.3489	18.31	9.16
27	13.1329	2.9067	0.5057	0.4234	0.3711	17.34	8.67
28	12.2150	2.9065	0.5254	0.4402	0.3935	16.48	8.24
29	11.3890	2.9053	0.5447	0.4568	0.4159	15.71	7.86
30	10.6431	2.9030	0.5637	0.4732	0.4382	15.02	7.51
31	9.9675	2.8997	0.5824	0.4894	0.4604	14.40	7.20
32	9.3536	2.8955	0.6032	0.5053	0.4826	13.84	6.92
33	8.7942	2.8902	0.6245	0.5209	0.5038	13.33	6.67
34	8.2832	2.8841	0.6454	0.5388	0.5246	12.88	6.44
35	7.8523	2.8547	0.6658	0.5566	0.5451	12.47	6.24
36	7.4549	2.8241	0.6858	0.5742	0.5653	12.10	6.05
37	7.0866	2.7933	0.7053	0.5914	0.5852	11.76	5.88
38	6.7448	2.7624	0.7243	0.6082	0.6047	11.44	5.72
39	6.4268	2.7313	0.7439	0.6247	0.6238	11.15	5.58
40	6.1307	2.7002	0.7656	0.6407	0.6423	10.88	5.44
41	5.8544	2.6690	0.7868	0.6564	0.6597	10.63	5.31
42	5.5963	2.6377	0.8073	0.6748	0.6765	10.39	5.20
43	5.3547	2.6203	0.8273	0.6927	0.6929	10.19	5.09
44	5.1284	2.6048	0.8465	0.7102	0.7088	10.00	5.00
45	4.9160	2.5888	0.8652	0.7272	0.7241	9.82	4.91

Distance From Tower (m)	KVLZ.P Facility	KOHR Facility	KYTI Facility	KZWY Facility	KLQQ Facility	Total RF (uW/cm2)	Percent of 200uW/cm2
46	4.7165	2.5723	0.8832	0.7438	0.7390	9.65	4.83
47	4.5288	2.5554	0.8999	0.7598	0.7533	9.50	4.75
48	4.3520	2.5382	0.9098	0.7753	0.7671	9.34	4.67
49	4.1853	2.5205	0.9190	0.7902	0.7798	9.19	4.60
50	4.0280	2.5026	0.9277	0.8030	0.7917	9.05	4.53
51	3.8793	2.4843	0.9359	0.8112	0.8031	8.91	4.46
52	3.7387	2.4481	0.9435	0.8190	0.8139	8.76	4.38
53	3.6056	2.4101	0.9505	0.8263	0.8242	8.62	4.31
54	3.4794	2.3726	0.9570	0.8331	0.8340	8.48	4.24
55	3.3597	2.3356	0.9630	0.8395	0.8433	8.34	4.17
56	3.2460	2.2991	0.9685	0.8455	0.8521	8.21	4.11
57	3.1380	2.2631	0.9730	0.8511	0.8604	8.09	4.04
58	3.0353	2.2276	0.9770	0.8562	0.8679	7.96	3.98
59	2.9375	2.1926	0.9804	0.8609	0.8724	7.84	3.92
60	2.8444	2.1581	0.9835	0.8651	0.8765	7.73	3.86
61	2.7556	2.1241	0.9861	0.8685	0.8801	7.61	3.81
62	2.6709	2.0906	0.9883	0.8716	0.8834	7.50	3.75
63	2.5900	2.0576	0.9901	0.8743	0.8863	7.40	3.70
64	2.5127	2.0251	0.9915	0.8767	0.8889	7.29	3.65
65	2.4388	1.9931	0.9925	0.8788	0.8911	7.19	3.60
66	2.3682	1.9616	0.9932	0.8805	0.8929	7.10	3.55
67	2.3005	1.9306	0.9936	0.8820	0.8944	7.00	3.50
68	2.2357	1.9002	0.9923	0.8831	0.8956	6.91	3.45
69	2.1724	1.8702	0.9908	0.8839	0.8964	6.81	3.41
70	2.1100	1.8408	0.9890	0.8845	0.8970	6.72	3.36
71	2.0503	1.8119	0.9869	0.8848	0.8972	6.63	3.32
72	1.9931	1.7834	0.9846	0.8837	0.8972	6.54	3.27
73	1.9382	1.7554	0.9821	0.8824	0.8969	6.46	3.23
74	1.8856	1.7193	0.9793	0.8810	0.8964	6.36	3.18
75	1.8350	1.6839	0.9764	0.8793	0.8956	6.27	3.14
76	1.7865	1.6495	0.9732	0.8774	0.8945	6.18	3.09
77	1.7399	1.6159	0.9698	0.8753	0.8932	6.09	3.05
78	1.6951	1.5830	0.9663	0.8731	0.8918	6.01	3.00
79	1.6519	1.5510	0.9626	0.8707	0.8901	5.93	2.96
80	1.6104	1.5198	0.9590	0.8681	0.8882	5.85	2.92
81	1.5705	1.4893	0.9566	0.8653	0.8861	5.77	2.88
82	1.5320	1.4595	0.9540	0.8625	0.8838	5.69	2.85
83	1.4949	1.4305	0.9512	0.8595	0.8807	5.62	2.81
84	1.4591	1.4022	0.9482	0.8563	0.8773	5.54	2.77
85	1.4246	1.3745	0.9451	0.8536	0.8737	5.47	2.74
86	1.3913	1.3475	0.9418	0.8515	0.8700	5.40	2.70
87	1.3592	1.3212	0.9384	0.8493	0.8662	5.33	2.67
88	1.3282	1.3201	0.9348	0.8469	0.8623	5.29	2.65
89	1.2982	1.3186	0.9311	0.8445	0.8583	5.25	2.63
90	1.2692	1.3169	0.9273	0.8418	0.8542	5.21	2.60
91	1.2412	1.3149	0.9234	0.8391	0.8500	5.17	2.58
92	1.2140	1.3127	0.9193	0.8362	0.8457	5.13	2.56
93	1.1878	1.3102	0.9151	0.8332	0.8414	5.09	2.54
94	1.1624	1.3075	0.9109	0.8302	0.8369	5.05	2.52
95	1.1378	1.3046	0.9065	0.8270	0.8324	5.01	2.50
96	1.1140	1.3014	0.9012	0.8237	0.8279	4.97	2.48
97	1.0909	1.2981	0.8941	0.8203	0.8233	4.93	2.46
98	1.0686	1.2946	0.8871	0.8169	0.8186	4.89	2.44
99	1.0469	1.2908	0.8800	0.8133	0.8137	4.84	2.42
100	1.0258	1.2869	0.8729	0.8097	0.8087	4.80	2.40