

Environmental Protection

The proposed facility is to be built using an ERI SHPX 10-bay circularly polarized full-wave spaced antenna.

As can be seen in Exhibit 2-A, the maximum theoretical RF value would be $18.3\mu\text{W}/\text{cm}^2$ at a distance of 33 meters from the tower, which is 9.15% of the $200\mu\text{W}/\text{cm}^2$ permitted for public (uncontrolled) exposure, and 1.83% 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: KLDX
FIN 17314
Sioux Center, IA

Site type: Proposed
Channel: 203
Class: C1
ERP: 100
Antenna: ERI
Model: SHPX
of bays: 10
bay spacing: 1.0
COR AGL: 137
Polarization: Circular Pol

Distance From Tower (m)	KLDX Facility	Total RF (uW/cm2)	Percent of 200uW/cm2
0	10.67969	10.68	5.340
1	10.67912	10.68	5.340
2	10.67737	10.68	5.339
3	10.67437	10.67	5.337
4	10.66996	10.67	5.335
5	10.66394	10.66	5.332
6	10.65606	10.66	5.328
7	10.64599	10.65	5.323
8	10.63337	10.63	5.317
9	10.61778	10.62	5.309
10	10.59875	10.60	5.299
11	10.57576	10.58	5.288
12	10.55542	10.56	5.278
13	11.03673	11.04	5.518
14	11.52001	11.52	5.760
15	12.00341	12.00	6.002
16	12.48485	12.48	6.242
17	12.96205	12.96	6.481
18	13.43252	13.43	6.716
19	13.89355	13.89	6.947
20	14.34222	14.34	7.171
21	14.77541	14.78	7.388
22	15.18984	15.19	7.595
23	15.58204	15.58	7.791
24	15.94841	15.95	7.974
25	16.36717	16.37	8.184
26	16.76915	16.77	8.385
27	17.13472	17.13	8.567
28	17.4593	17.46	8.730
29	17.73834	17.74	8.869
30	17.96738	17.97	8.984
31	18.14214	18.14	9.071
32	18.25854	18.26	9.129
33	18.31287	18.31	9.156
34	18.30179	18.30	9.151
35	18.22249	18.22	9.111
36	18.07271	18.07	9.036
37	17.84031	17.84	8.920
38	17.51089	17.51	8.755
39	17.11124	17.11	8.556
40	16.64246	16.64	8.321
41	16.10654	16.11	8.053
42	15.5064	15.51	7.753
43	14.84587	14.85	7.423
44	14.12972	14.13	7.065
45	13.36362	13.36	6.682

Distance From Tower (m)	0.0000 Facility	Total RF (uW/cm2)	Percent of 200uW/cm2
46	12.5541	12.55	6.277
47	11.7085	11.71	5.854
48	10.8349	10.83	5.417
49	9.9418	9.94	4.971
50	9.0408	9.04	4.520
51	8.1512	8.15	4.076
52	7.2669	7.27	3.633
53	6.3977	6.40	3.199
54	5.5534	5.55	2.777
55	4.7436	4.74	2.372
56	3.9773	3.98	1.989
57	3.2628	3.26	1.631
58	2.6077	2.61	1.304
59	2.0183	2.02	1.009
60	1.4999	1.50	0.750
61	1.0566	1.06	0.528
62	0.6909	0.69	0.345
63	0.4039	0.40	0.202
64	0.1953	0.20	0.098
65	0.0633	0.06	0.032
66	0.0042	0.00	0.002
67	0.0138	0.01	0.007
68	0.0867	0.09	0.043
69	0.2162	0.22	0.108
70	0.3945	0.39	0.197
71	0.6130	0.61	0.307
72	0.8626	0.86	0.431
73	1.1335	1.13	0.567
74	1.4161	1.42	0.708
75	1.7006	1.70	0.850
76	1.9778	1.98	0.989
77	2.2389	2.24	1.119
78	2.4760	2.48	1.238
79	2.6820	2.68	1.341
80	2.8578	2.86	1.429
81	2.9933	2.99	1.497
82	3.0846	3.08	1.542
83	3.1294	3.13	1.565
84	3.1272	3.13	1.564
85	3.0786	3.08	1.539
86	2.9859	2.99	1.493
87	2.8525	2.85	1.426
88	2.6827	2.68	1.341
89	2.4820	2.48	1.241
90	2.2568	2.26	1.128
91	2.0137	2.01	1.007
92	1.7597	1.76	0.880
93	1.5023	1.50	0.751
94	1.2483	1.25	0.624
95	1.0047	1.00	0.502
96	0.7774	0.78	0.389
97	0.5703	0.57	0.285
98	0.3915	0.39	0.196
99	0.2441	0.24	0.122
100	0.1307	0.13	0.065