

# Educational Media Foundation

Exhibit 22

5700 West Oaks Boulevard ♦ Rocklin ♦ California ♦ 95765

Bay City, MI

The proposed facility is to be built using a 4-bay vertically polarized full wave spaced antenna on the same site as the following:

Status	Call	Licensee/Permittee	Channel	City	FIN
CP	WLKB	Educational Media Foundation	215A	Freeland, MI	89044
LIC	WSGW-FM	NM Licensing, LLC	263A	Carrollton, MI	41842
CP	WDCP-DTV	Delta College	18	University Center, MI	16528
LIC	WDCP-TV	Delta College	19	University Center, MI	16528

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  $125.11 \mu\text{W}/\text{cm}^2$  at a distance of 20 meters from the tower, which is 62.55% of the  $200 \mu\text{W}/\text{cm}^2$  permitted for public (uncontrolled) exposure, and 12.51% 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: WTRK.P 206C2 Bay City, MI**

<b>WTRK.P</b>	<b>WLKB</b>	<b>WSGW-FM</b>	<b>WDCP-TV</b>	<b>WDCP-TV</b>
<b>Site type:</b> proposed	FM CP	FM station	DTV CP	TV station
<b>Channel:</b> 206	215	263	18	19
<b>Class:</b> C2	A	A		
<b>ERP:</b> 50 kw	0.43 kw	6 kw	50 kw	1290 kw
<b>Antenna:</b> ERI	ERI		DIE	DIE
Dipole	rototiller	rototiller	TFU	TFU
4-bay	2-bay	2-bay		
full wave	half wave	full wave		
<b>COR AGL:</b> 113 m	106 m	102 m	142 m	144 m
<b>Polorization:</b> Vertical	circular	circular	horizontal	horizontal

<b>Distance From Tower (m)</b>	<b>WTRK.P Facility</b>	<b>WLKB Facility</b>	<b>WSGW-FM Facility</b>	<b>WDCP-TV Facility</b>	<b>WDCP-TV Facility</b>	<b>Total RF (uW/cm2)</b>	<b>Percent of 200uW/cm2</b>
0	105.9673	0.0000	1.1560	<b>0.0083</b>	<b>0.1289</b>	107.26	53.63
1	106.4850	0.0000	1.1559	<b>0.0083</b>	<b>0.1289</b>	107.78	53.89
2	106.9869	0.0000	1.1555	<b>0.0083</b>	0.1288	108.28	54.14
3	107.4725	0.0000	1.1550	<b>0.0083</b>	0.1288	108.76	54.38
4	107.9410	0.0000	1.1542	<b>0.0083</b>	0.1288	109.23	54.62
5	108.3913	0.0000	1.1532	<b>0.0083</b>	0.1287	109.68	54.84
6	108.8225	0.0000	1.1520	<b>0.0083</b>	0.1286	110.11	55.06
7	109.2330	0.0000	1.1505	<b>0.0083</b>	0.1286	110.52	55.26
8	109.6214	0.0000	1.1488	<b>0.0083</b>	0.1285	110.91	55.45
9	109.9860	0.0000	1.1526	<b>0.0083</b>	0.1284	111.28	55.64
10	110.4506	0.0000	1.2260	0.0082	0.1282	111.81	55.91
11	111.8697	0.0000	1.3011	0.0082	0.1281	113.31	56.65
12	113.2628	0.0000	1.3778	0.0082	0.1280	114.78	57.39
13	114.6261	0.0000	1.4560	0.0082	0.1278	116.22	58.11
14	115.9561	0.0000	1.5356	0.0082	0.1277	117.63	58.81
15	117.2486	0.0000	1.6164	0.0082	0.1275	119.00	59.50
16	118.4995	0.0000	1.6985	0.0082	0.1273	120.33	60.17
17	119.7043	0.0000	1.7815	0.0082	0.1271	121.62	60.81
18	120.8583	0.0001	1.8657	0.0082	0.1269	122.86	61.43
19	121.9569	0.0001	1.9661	0.0081	0.1267	124.06	62.03
20	<b>122.9073</b>	0.0001	2.0679	0.0081	0.1264	<b>125.11</b>	<b>62.55</b>
21	122.7159	0.0001	2.1711	0.0081	0.1262	125.02	62.51
22	122.4615	0.0002	2.2755	0.0081	0.1259	124.87	62.44
23	122.1408	0.0002	2.3808	0.0081	0.1257	124.66	62.33
24	121.7508	0.0002	2.4870	0.0081	0.1254	124.37	62.19
25	121.2884	0.0003	2.5937	0.0080	0.1251	124.02	62.01
26	120.7506	0.0004	2.7009	0.0080	0.1248	123.58	61.79
27	120.1346	0.0004	2.8082	0.0080	0.1245	123.08	61.54
28	119.4378	0.0005	2.9102	0.0080	0.1242	122.48	61.24
29	118.6578	0.0006	3.0093	0.0080	0.1238	121.80	60.90
30	117.7923	0.0007	3.1077	0.0079	0.1235	121.03	60.52
31	116.7543	0.0008	3.2053	0.0079	0.1232	120.09	60.05
32	115.5972	0.0010	3.3020	0.0079	0.1228	119.03	59.52
33	114.3529	0.0011	3.3975	0.0079	0.1224	117.88	58.94
34	113.0206	0.0013	3.4915	0.0078	0.1221	116.64	58.32
35	111.5999	0.0015	3.5841	0.0078	0.1217	115.31	57.66
36	110.0908	0.0017	3.6748	0.0078	0.1213	113.90	56.95
37	108.4934	0.0019	3.7637	0.0078	0.1209	112.39	56.19
38	106.8084	0.0022	3.8587	0.0077	0.1205	110.80	55.40
39	105.0370	0.0024	3.9525	0.0077	0.1201	109.12	54.56
40	103.1806	0.0028	4.0440	0.0077	0.1196	107.35	53.68
41	101.2412	0.0031	4.1328	0.0076	0.1192	105.50	52.75
42	99.5057	0.0035	4.2187	0.0076	0.1188	103.85	51.93
43	97.7194	0.0039	4.3017	0.0076	0.1183	102.15	51.08
44	95.8416	0.0043	4.3815	0.0076	0.1179	100.35	50.18
45	93.8753	0.0047	4.4581	0.0075	0.1174	98.46	49.23

Distance From Tower (m)	WTRK.P Facility	WLKB Facility	WSGW-FM Facility	WDCP-TV Facility	WDCP-TV Facility	Total RF (uW/cm2)	Percent of 200uW/cm2
46	91.8241	0.0052	4.5311	0.0075	0.1169	96.48	48.24
47	89.6917	0.0058	4.6006	0.0075	0.1165	94.42	47.21
48	87.4825	0.0063	4.6739	0.0074	0.1160	92.29	46.14
49	85.2011	0.0070	4.7528	0.0074	0.1155	90.08	45.04
50	82.8527	0.0076	4.8278	0.0074	0.1150	87.81	43.91
51	80.4427	0.0083	4.8985	0.0073	0.1145	85.47	42.74
52	77.9769	0.0091	4.9649	0.0073	0.1140	83.07	41.54
53	75.3390	0.0099	5.0268	0.0073	0.1135	80.50	40.25
54	72.4032	0.0108	5.0843	0.0072	0.1130	77.62	38.81
55	69.4631	0.0117	5.1371	0.0072	0.1125	74.73	37.37
56	66.5254	0.0126	5.1852	0.0072	0.1119	71.84	35.92
57	63.5965	0.0136	5.2286	0.0071	0.1114	68.96	34.48
58	60.6831	0.0147	5.2672	0.0071	0.1109	66.08	33.04
59	57.7916	0.0158	5.3030	0.0071	0.1103	63.23	31.61
60	54.9283	0.0170	5.3497	0.0070	0.1098	60.41	30.21
61	52.0995	0.0182	5.3912	0.0070	0.1093	57.63	28.81
62	49.3113	0.0195	5.4274	0.0070	0.1087	54.87	27.44
63	46.5693	0.0209	5.4583	0.0069	0.1082	52.16	26.08
64	43.8794	0.0223	5.4839	0.0069	0.1076	49.50	24.75
65	41.2467	0.0238	5.5042	0.0068	0.1071	46.89	23.44
66	38.7942	0.0254	5.5193	0.0068	0.1065	44.45	22.23
67	36.4276	0.0270	5.5292	0.0068	0.1059	42.10	21.05
68	34.1124	0.0287	<b>5.5339</b>	0.0067	0.1054	39.79	19.89
69	31.8536	0.0304	5.5335	0.0067	0.1048	37.53	18.76
70	29.6559	0.0322	5.5281	0.0067	0.1042	35.33	17.66
71	27.5237	0.0341	5.5177	0.0066	0.1037	33.19	16.59
72	25.4610	0.0360	5.4868	0.0066	0.1031	31.09	15.55
73	23.4714	0.0380	5.4405	0.0066	0.1025	29.06	14.53
74	21.5582	0.0400	5.3907	0.0065	0.1019	27.10	13.55
75	19.7241	0.0419	5.3375	0.0065	0.1014	25.21	12.61
76	17.9715	0.0438	5.2811	0.0064	0.1008	23.40	11.70
77	16.3024	0.0458	5.2216	0.0064	0.1002	21.68	10.84
78	14.7184	0.0478	5.1591	0.0064	0.0996	20.03	10.02
79	13.2206	0.0498	5.0938	0.0063	0.0991	18.47	9.23
80	11.7557	0.0519	5.0259	0.0063	0.0985	16.94	8.47
81	10.3842	0.0540	4.9555	0.0063	0.0979	15.50	7.75
82	9.1130	0.0561	4.8828	0.0062	0.0973	14.16	7.08
83	7.9399	0.0583	4.8079	0.0062	0.0967	12.91	6.45
84	6.8627	0.0605	4.7309	0.0061	0.0961	11.76	5.88
85	5.8788	0.0627	4.6521	0.0061	0.0956	10.70	5.35
86	4.9854	0.0649	4.5707	0.0061	0.0950	9.72	4.86
87	4.1793	0.0672	4.4867	0.0060	0.0944	8.83	4.42
88	3.4573	0.0695	4.4014	0.0060	0.0938	8.03	4.01
89	2.8159	0.0718	4.3150	0.0059	0.0932	7.30	3.65
90	2.2516	0.0741	4.2275	0.0059	0.0927	6.65	3.33
91	1.7606	0.0764	4.1392	0.0059	0.0921	6.07	3.04
92	1.3392	0.0788	4.0501	0.0058	0.0915	5.57	2.78
93	0.9835	0.0811	3.9604	0.0058	0.0909	5.12	2.56
94	0.6895	0.0835	3.8702	0.0058	0.0904	4.74	2.37
95	0.4533	0.0858	3.7797	0.0057	0.0898	4.41	2.21
96	0.2710	0.0882	3.6889	0.0057	0.0892	4.14	2.07
97	0.1386	0.0906	3.5980	0.0056	0.0886	3.92	1.96
98	0.0522	0.0930	3.5071	0.0056	0.0881	3.75	1.87
99	0.0079	0.0954	3.4163	0.0056	0.0875	3.61	1.81
100	0.0021	<b>0.0978</b>	3.3257	0.0055	0.0869	3.52	1.76