

WPLH (FM)
Channel 276D – 103.1 MHz
0.009 kW ERP – 152.4 m AMSL
Tifton, Georgia
March 2021

Radiofrequency Radiation Calculation

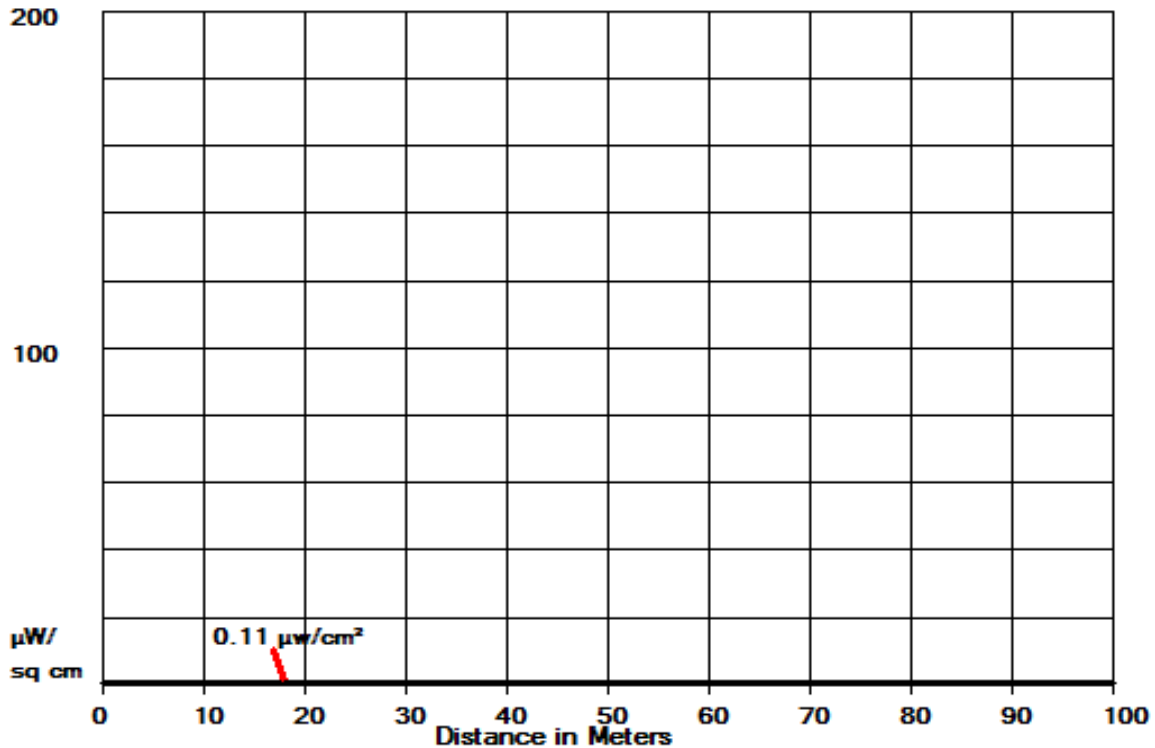
This Radiofrequency Radiation study is being conducted to determine whether this proposal is in compliance with OET Bulletin Number 65, dated August 1997, regarding human exposure to radiofrequency radiation in the vicinity of broadcast towers. This study considers all nearby contributing stations and utilizes the appropriate formulas contained in the OET Bulletin.

The proposed antenna is an SWR FMEC/2 (EPA Type 2) and qualifies for “best case” RFR treatment. The antenna will be mounted on a water tower with its center of radiation 33.5 meters above the ground and will operate with an effective radiated power of 0.009 kilowatts (circularly polarized). At two meters, the height of an average person, above ground at the base of the tower, this proposal will contribute, best case, 0.04261 microwatts/sq. centimeter or 0.021307 % of the allowable ANSI limit. Other areas near the tower were examined and it was found that the maximum radiofrequency radiation contribution of this proposal will be 0.1 percent of the allowable ANSI limit (best case) from 13 to 23 meters from the tower. See the attached radiofrequency radiation density graph. Because this contribution is less than 5% of the ANSI limit, it is not necessary to calculate the contributions of nearby broadcast stations. Since this level is below the maximum contribution of 100% defined in the aforementioned Bulletin, this proposal is believed to be in compliance with OET Bulletin Number 65 as required

by the Federal Communications Commission. All calculations were made in the uncontrolled mode.

Further, the applicant will post warning signs in the vicinity of the tower warning of potential radiofrequency radiation hazards at the site. In addition, the applicant will reduce the power of the proposed facility or cease operation, as necessary, to protect persons having access to the site, tower or antenna from radiofrequency radiation in excess of FCC guidelines.

EPA Type 2: Opposed "V" dipole, 2 Bays, Spac= 1, H=0.009 kW, V=0.00916 kW, 33.5 M AG



HORZ. DISTANCE FROM FM RADIATOR VS POWER DENSITY (Microwatt/Square cm)
 Dist(Meters) PD (H) PD (V) Total(uW/cm2) Percent Max.(200)

Dist(Meters)	PD (H)	PD (V)	Total(uW/cm2)	Percent Max.(200)
0	0.01	0.03	0.04	0.0
1	0.01	0.04	0.04	0.0
2	0.01	0.04	0.05	0.0
3	0.01	0.04	0.05	0.0
4	0.01	0.04	0.05	0.0
5	0.01	0.05	0.06	0.0
6	0.01	0.05	0.06	0.0
7	0.01	0.06	0.07	0.0
8	0.02	0.06	0.07	0.0
9	0.02	0.06	0.08	0.0
10	0.02	0.06	0.09	0.0
11	0.03	0.07	0.09	0.0
12	0.03	0.07	0.10	0.0
13	0.04	0.07	0.10	0.1
14	0.04	0.07	0.11	0.1
15	0.05	0.07	0.11	0.1
16	0.05	0.06	0.11	0.1
17	0.05	0.06	0.11	0.1
18	0.05	0.06	0.11	0.1
19	0.05	0.06	0.11	0.1
20	0.06	0.06	0.11	0.1
21	0.06	0.05	0.11	0.1
22	0.06	0.05	0.11	0.1
23	0.06	0.05	0.11	0.1
24	0.05	0.05	0.10	0.1
25	0.05	0.04	0.09	0.0

Dist(Meters)	PD (H)	PD (V)	Total(uW/cm2)	Percent Max.
26	0.05	0.04	0.09	0.0
27	0.05	0.04	0.08	0.0
28	0.05	0.03	0.08	0.0
29	0.04	0.03	0.07	0.0
30	0.04	0.03	0.07	0.0
31	0.04	0.03	0.06	0.0
32	0.04	0.02	0.06	0.0
33	0.03	0.02	0.05	0.0
34	0.03	0.02	0.05	0.0
35	0.03	0.02	0.04	0.0
36	0.02	0.01	0.04	0.0
37	0.02	0.01	0.03	0.0
38	0.02	0.01	0.03	0.0
39	0.02	0.01	0.02	0.0
40	0.01	0.01	0.02	0.0
41	0.01	0.01	0.02	0.0
42	0.01	0.00	0.01	0.0
43	0.01	0.00	0.01	0.0
44	0.01	0.00	0.01	0.0
45	0.01	0.00	0.01	0.0
46	0.00	0.00	0.01	0.0
47	0.00	0.00	0.00	0.0
48	0.00	0.00	0.00	0.0
49	0.00	0.00	0.00	0.0
50	0.00	0.00	0.00	0.0
51	0.00	0.00	0.00	0.0
52	0.00	0.00	0.00	0.0
53	0.00	0.00	0.00	0.0
54	0.00	0.00	0.00	0.0
55	0.00	0.00	0.00	0.0
56	0.00	0.00	0.00	0.0
57	0.00	0.00	0.00	0.0
58	0.00	0.00	0.00	0.0
59	0.00	0.00	0.00	0.0
60	0.00	0.00	0.00	0.0
61	0.00	0.00	0.00	0.0
62	0.00	0.00	0.00	0.0
63	0.00	0.00	0.00	0.0
64	0.00	0.00	0.00	0.0
65	0.00	0.00	0.00	0.0
66	0.00	0.00	0.00	0.0
67	0.00	0.00	0.01	0.0
68	0.00	0.00	0.01	0.0
69	0.00	0.00	0.01	0.0
70	0.00	0.00	0.01	0.0
71	0.01	0.00	0.01	0.0
72	0.01	0.00	0.01	0.0
73	0.01	0.00	0.01	0.0
74	0.01	0.00	0.01	0.0
75	0.01	0.00	0.01	0.0
76	0.01	0.00	0.01	0.0
77	0.01	0.00	0.01	0.0

Dist(Meters)	PD (H)	PD (V)	Total(uW/cm2)	Percent Max.
78	0.01	0.00	0.01	0.0
79	0.01	0.00	0.01	0.0
80	0.01	0.01	0.01	0.0
81	0.01	0.01	0.01	0.0
82	0.01	0.01	0.01	0.0
83	0.01	0.01	0.01	0.0
84	0.01	0.01	0.02	0.0
85	0.01	0.01	0.02	0.0
86	0.01	0.01	0.02	0.0
87	0.01	0.01	0.02	0.0
88	0.01	0.01	0.02	0.0
89	0.01	0.01	0.02	0.0
90	0.01	0.01	0.02	0.0
91	0.01	0.01	0.02	0.0
92	0.01	0.01	0.02	0.0
93	0.01	0.01	0.02	0.0
94	0.01	0.01	0.02	0.0
95	0.01	0.01	0.02	0.0
96	0.01	0.01	0.02	0.0
97	0.01	0.01	0.02	0.0
98	0.01	0.01	0.02	0.0
99	0.01	0.01	0.02	0.0
100	0.01	0.01	0.02	0.0