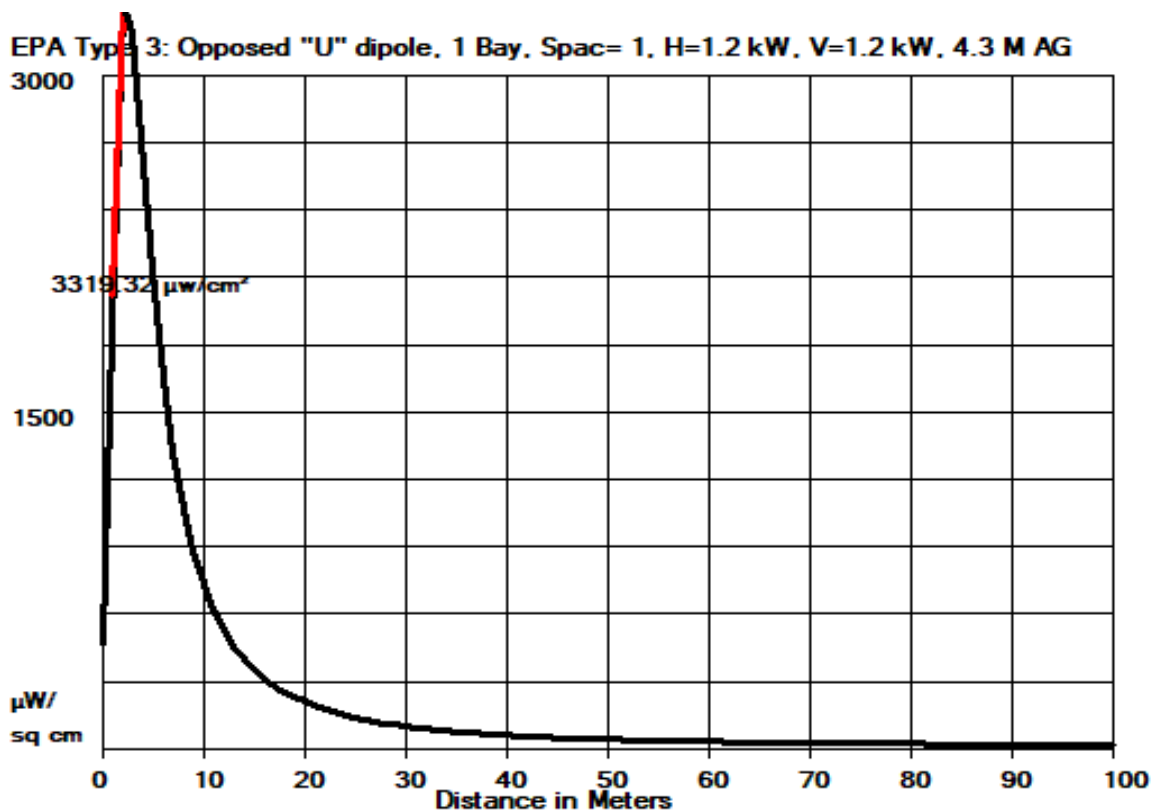


RF hazard analysis: Emergency Auxiliary Antenna STA application, 744 Building, Newark, NJ

The proposed FCC, type-three, ERI Rototiller, antenna produces an ERP of 1.2 kW from an antenna height of 6.126 meters above the roof top. This amounts to 4.23 meters above head height. At this distance from the radiator, using the OET 65 formulas, the power density at head height, peaks at one meter, horizontally, from the antenna base. This amounts to a maximum of $3.145.39 \mu\text{w}/\text{cm}^2$ which is well above the controlled maximum of $1,000 \mu\text{w}/\text{cm}^2$. (See the attached graph below.)

To comply with the Commission's maximum, the applicant will place RF hazard warning signs along the stairway leading up to the roof and at the door. The applicant pledges to reduce power or to terminate transmissions in the event the roof area must be entered. The door to the roof will always be locked and only available to maintenance personnel from the building and the station staff. The warning sign will inform any person at the door of the hazard and provide a telephone number to WBGO station personnel who will turn the power down to a power calculated to meet the OET 65 standard (0.34 kW) or will terminate transmissions completely until the person has left. (See the attachment.)

WBGO Radio



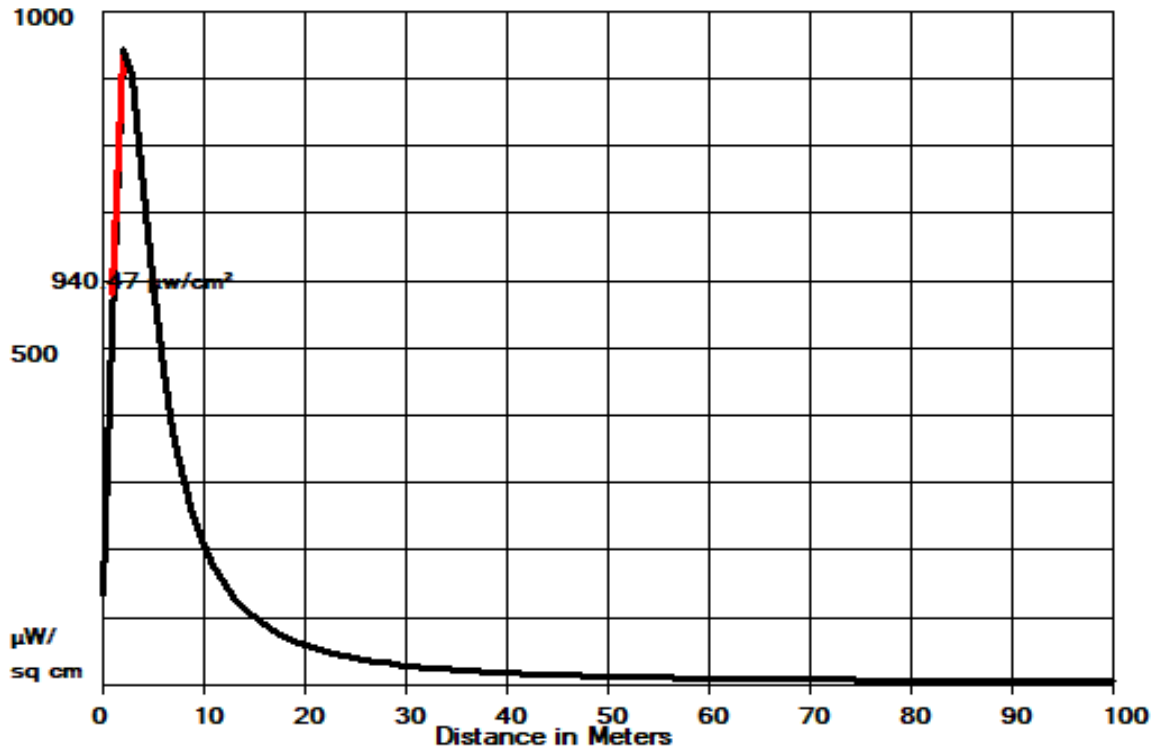
HORZ. DISTANCE FROM FM RADIATOR VS POWER DENSITY (Microwatt/Square cm)
 Dist(Meters) PD (H) PD (V) Total ($\mu\text{W}/\text{cm}^2$) Percent Max. (1000)

Dist(Meters)	PD (H)	PD (V)	Total ($\mu\text{W}/\text{cm}^2$)	Percent Max. (1000)
0	227.35	227.35	454.70	45.5
1	939.40	917.92	1857.33	185.7
2	1809.65	1509.67	3319.32	331.9
3	1668.69	1511.89	3180.58	318.1
4	1226.19	1361.90	2588.09	258.8
5	947.36	1179.57	2126.92	212.7
6	767.08	879.74	1646.82	164.7
7	619.24	690.45	1309.69	131.0
8	505.16	558.43	1063.59	106.4
9	415.96	457.74	873.70	87.4
10	345.10	379.35	724.45	72.4
11	290.62	319.19	609.81	61.0
12	247.92	272.10	520.02	52.0
13	213.88	234.59	448.47	44.8
14	187.08	203.97	391.06	39.1
15	165.00	178.92	343.92	34.4
16	146.57	158.18	304.75	30.5
17	131.04	140.83	271.87	27.2
18	117.83	126.17	244.00	24.4
19	106.51	113.68	220.19	22.0
20	96.74	102.94	199.68	20.0
21	88.24	93.65	181.89	18.2
22	80.81	85.56	166.37	16.6
23	74.28	78.47	152.75	15.3
24	68.51	72.22	140.73	14.1
25	63.38	66.69	130.07	13.0

Dist (Meters)	PD (H)	PD (V)	Total (uW/cm2)	Percent Max.
26	58.80	61.77	120.57	12.1
27	54.60	57.26	111.86	11.2
28	50.79	53.18	103.97	10.4
29	47.37	49.52	96.89	9.7
30	44.29	46.23	90.51	9.1
31	41.49	43.25	84.74	8.5
32	38.95	40.55	79.50	7.9
33	36.64	38.09	74.73	7.5
34	34.52	35.86	70.38	7.0
35	32.59	33.81	66.40	6.6
36	30.81	31.93	62.74	6.3
37	29.17	30.21	59.38	5.9
38	27.66	28.62	56.28	5.6
39	26.27	27.15	53.42	5.3
40	24.97	25.79	50.77	5.1
41	23.78	24.54	48.31	4.8
42	22.66	23.37	46.03	4.6
43	21.62	22.28	43.90	4.4
44	20.65	21.27	41.92	4.2
45	19.75	20.32	40.07	4.0
46	18.90	19.44	38.34	3.8
47	18.11	18.61	36.72	3.7
48	17.36	17.83	35.20	3.5
49	16.66	17.11	33.77	3.4
50	16.00	16.42	32.42	3.2
51	15.38	15.78	31.16	3.1
52	14.80	15.17	29.97	3.0
53	14.25	14.60	28.84	2.9
54	13.72	14.06	27.78	2.8
55	13.23	13.55	26.78	2.7
56	12.76	13.06	25.82	2.6
57	12.32	12.60	24.92	2.5
58	11.90	12.17	24.07	2.4
59	11.50	11.75	23.25	2.3
60	11.12	11.36	22.48	2.2
61	10.76	10.99	21.75	2.2
62	10.42	10.64	21.05	2.1
63	10.09	10.30	20.39	2.0
64	9.78	9.98	19.75	2.0
65	9.48	9.67	19.15	1.9
66	9.19	9.37	18.57	1.9
67	8.92	9.09	18.02	1.8
68	8.66	8.83	17.49	1.7
69	8.41	8.57	16.98	1.7
70	8.17	8.33	16.50	1.6
71	7.94	8.09	16.04	1.6
72	7.73	7.87	15.59	1.6
73	7.52	7.65	15.17	1.5
74	7.31	7.44	14.76	1.5
75	7.12	7.24	14.37	1.4
76	6.93	7.05	13.99	1.4
77	6.76	6.87	13.63	1.4

Dist (Meters)	PD (H)	PD (V)	Total (uW/cm2)	Percent Max.
78	6.58	6.69	13.28	1.3
79	6.42	6.52	12.94	1.3
80	6.26	6.36	12.62	1.3
81	6.11	6.20	12.31	1.2
82	5.96	6.05	12.01	1.2
83	5.82	5.91	11.72	1.2
84	5.68	5.77	11.44	1.1
85	5.54	5.63	11.18	1.1
86	5.42	5.50	10.92	1.1
87	5.29	5.37	10.67	1.1
88	5.17	5.25	10.42	1.0
89	5.06	5.13	10.19	1.0
90	4.95	5.02	9.96	1.0
91	4.84	4.91	9.75	1.0
92	4.73	4.80	9.53	1.0
93	4.63	4.70	9.33	0.9
94	4.53	4.60	9.13	0.9
95	4.44	4.50	8.94	0.9
96	4.35	4.41	8.75	0.9
97	4.26	4.32	8.57	0.9
98	4.17	4.23	8.40	0.8
99	4.09	4.14	8.23	0.8
100	4.01	4.06	8.07	0.8

EPA Type 3: Opposed "U" dipole, 1 Bay, Spac= 1, H=34 kW, V=34 kW, 4.3 M AG



HORZ. DISTANCE FROM FM RADIATOR VS POWER DENSITY (Microwatt/Square cm)
 Dist(Meters) PD (H) PD (V) Total(uW/cm2) Percent Max.(1000)

Dist(Meters)	PD (H)	PD (V)	Total(uW/cm2)	Percent Max.(1000)
0	64.42	64.42	128.83	12.9
1	266.16	260.08	526.24	52.6
2	512.73	427.74	940.47	94.0
3	472.80	428.37	901.16	90.1
4	347.42	385.87	733.29	73.3
5	268.42	334.21	602.63	60.3
6	217.34	249.26	466.60	46.7
7	175.45	195.63	371.08	37.1
8	143.13	158.22	301.35	30.1
9	117.86	129.69	247.55	24.8
10	97.78	107.48	205.26	20.5
11	82.34	90.44	172.78	17.3
12	70.24	77.09	147.34	14.7
13	60.60	66.47	127.07	12.7
14	53.01	57.79	110.80	11.1
15	46.75	50.69	97.44	9.7
16	41.53	44.82	86.35	8.6
17	37.13	39.90	77.03	7.7
18	33.38	35.75	69.13	6.9
19	30.18	32.21	62.39	6.2
20	27.41	29.17	56.57	5.7
21	25.00	26.53	51.54	5.2
22	22.90	24.24	47.14	4.7
23	21.05	22.23	43.28	4.3
24	19.41	20.46	39.87	4.0
25	17.96	18.90	36.85	3.7

Dist (Meters)	PD (H)	PD (V)	Total (uW/cm2)	Percent Max.
26	16.66	17.50	34.16	3.4
27	15.47	16.22	31.69	3.2
28	14.39	15.07	29.46	2.9
29	13.42	14.03	27.45	2.7
30	12.55	13.10	25.64	2.6
31	11.76	12.25	24.01	2.4
32	11.04	11.49	22.52	2.3
33	10.38	10.79	21.17	2.1
34	9.78	10.16	19.94	2.0
35	9.23	9.58	18.81	1.9
36	8.73	9.05	17.78	1.8
37	8.27	8.56	16.82	1.7
38	7.84	8.11	15.95	1.6
39	7.44	7.69	15.14	1.5
40	7.08	7.31	14.38	1.4
41	6.74	6.95	13.69	1.4
42	6.42	6.62	13.04	1.3
43	6.13	6.31	12.44	1.2
44	5.85	6.03	11.88	1.2
45	5.59	5.76	11.35	1.1
46	5.35	5.51	10.86	1.1
47	5.13	5.27	10.40	1.0
48	4.92	5.05	9.97	1.0
49	4.72	4.85	9.57	1.0
50	4.53	4.65	9.19	0.9
51	4.36	4.47	8.83	0.9
52	4.19	4.30	8.49	0.8
53	4.04	4.14	8.17	0.8
54	3.89	3.98	7.87	0.8
55	3.75	3.84	7.59	0.8
56	3.62	3.70	7.32	0.7
57	3.49	3.57	7.06	0.7
58	3.37	3.45	6.82	0.7
59	3.26	3.33	6.59	0.7
60	3.15	3.22	6.37	0.6
61	3.05	3.11	6.16	0.6
62	2.95	3.01	5.96	0.6
63	2.86	2.92	5.78	0.6
64	2.77	2.83	5.60	0.6
65	2.69	2.74	5.42	0.5
66	2.60	2.66	5.26	0.5
67	2.53	2.58	5.10	0.5
68	2.45	2.50	4.95	0.5
69	2.38	2.43	4.81	0.5
70	2.32	2.36	4.67	0.5
71	2.25	2.29	4.54	0.5
72	2.19	2.23	4.42	0.4
73	2.13	2.17	4.30	0.4
74	2.07	2.11	4.18	0.4
75	2.02	2.05	4.07	0.4
76	1.96	2.00	3.96	0.4
77	1.91	1.95	3.86	0.4

Dist (Meters)	PD (H)	PD (V)	Total (uW/cm2)	Percent Max.
78	1.87	1.90	3.76	0.4
79	1.82	1.85	3.67	0.4
80	1.77	1.80	3.58	0.4
81	1.73	1.76	3.49	0.3
82	1.69	1.71	3.40	0.3
83	1.65	1.67	3.32	0.3
84	1.61	1.63	3.24	0.3
85	1.57	1.60	3.17	0.3
86	1.53	1.56	3.09	0.3
87	1.50	1.52	3.02	0.3
88	1.47	1.49	2.95	0.3
89	1.43	1.45	2.89	0.3
90	1.40	1.42	2.82	0.3
91	1.37	1.39	2.76	0.3
92	1.34	1.36	2.70	0.3
93	1.31	1.33	2.64	0.3
94	1.28	1.30	2.59	0.3
95	1.26	1.28	2.53	0.3
96	1.23	1.25	2.48	0.2
97	1.21	1.22	2.43	0.2
98	1.18	1.20	2.38	0.2
99	1.16	1.17	2.33	0.2
100	1.14	1.15	2.29	0.2