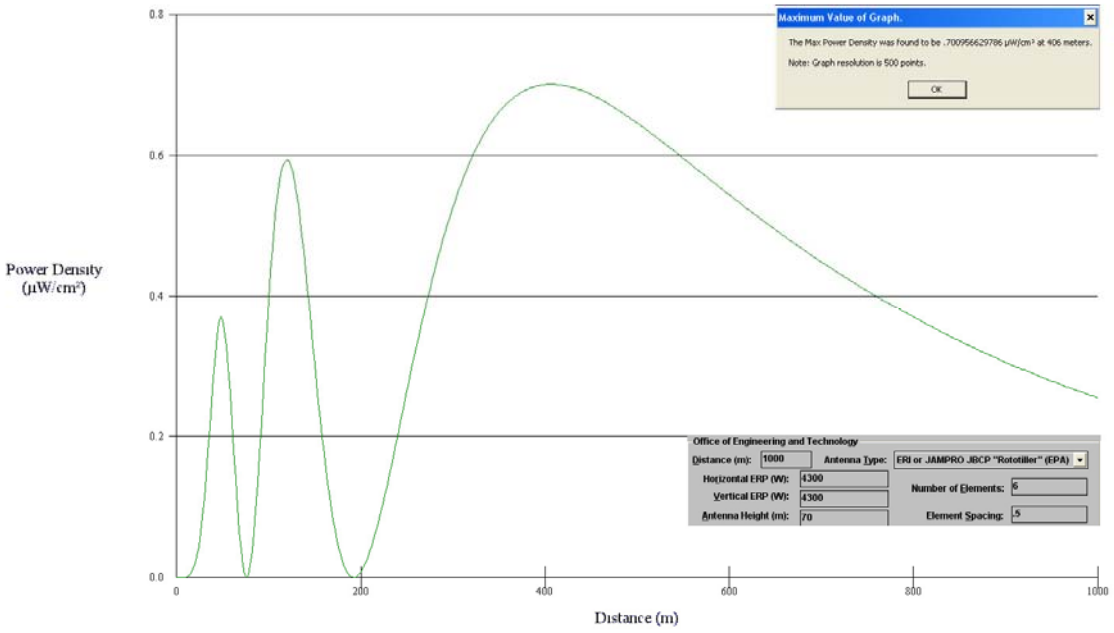
Non-ionizing Radiation Showing
For
Installed Antenna

The Construction Permit for KFSZ-Munds Park, AZ demonstrated compliance with the non-ionizing radiation portion 47CFR1.1306 by utilizing the FCC Model and specifying an ERI-Rototiller antenna (EPA Type 3, six sections, 0.5 wavelength spacing) installed at the height specified in the permit with an Effective Radiated Power of the sum of the horizontal and vertical proposed powers (8,600 watts). The results of the OET-FM Model are shown below.



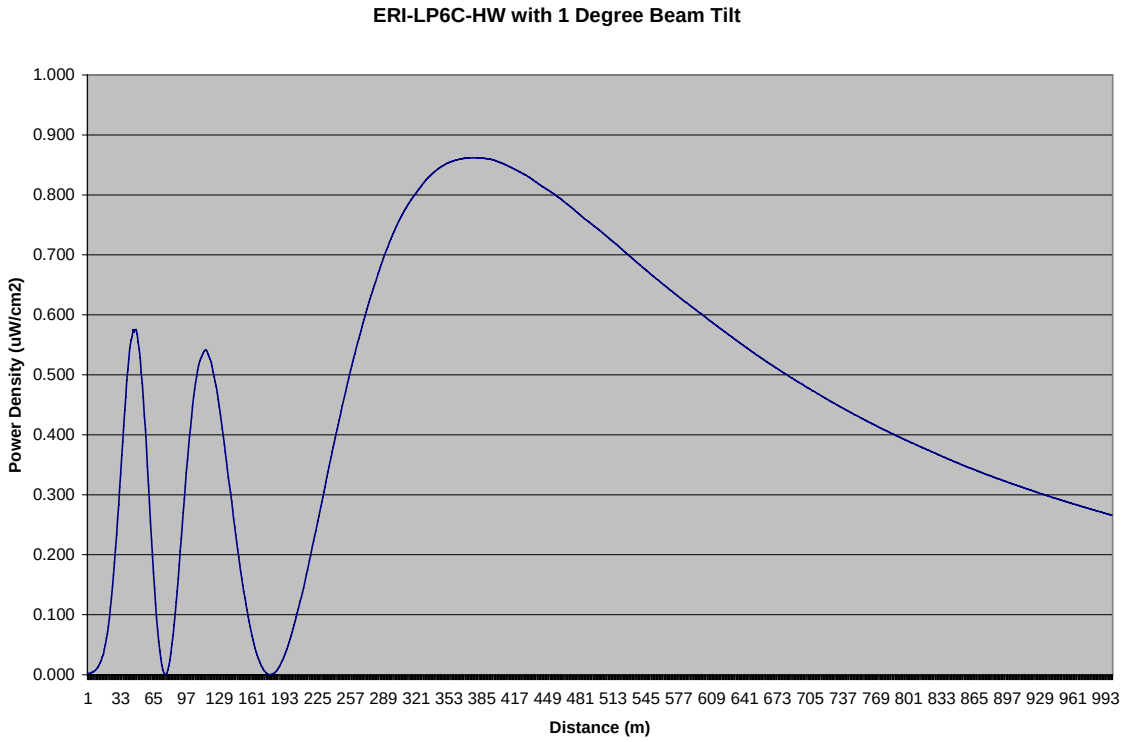
The antenna installed is an ERI Rototiller LP-6AC-HW-SP matching the EPA type and size modeled in the Construction Permit Application. 1 degree of beam tilt was added to the installed antenna. The beam tilt slightly increased the downward radiation of the antenna. Table 1 is a tabulation of Elevation Pattern provided by the antenna manufacturer (ERI) for the installed antenna. This data was utilized in connection with Equation 10 of the OET Bulletin 65 to calculate the predicted power density at 2 meters above ground level from the base of the tower to a distance of 1000 meters. Equation 10 states:

$$\mathbf{S=33.4\ F^2\ ERP\ /\ R^2 \quad (OET\text{-}65\ Equation\ 10)}$$

Where S=power density in $\mu W/cm^2$
F=Relative Field Factor (Relative numeric gain)
ERP=Effective Radiated Power in watts (8600 watts)

R= distance form the source in meters (hypotenuse of a triangle with sides equal the Center of Radiation less 2 meters and the distance from the base of the tower)

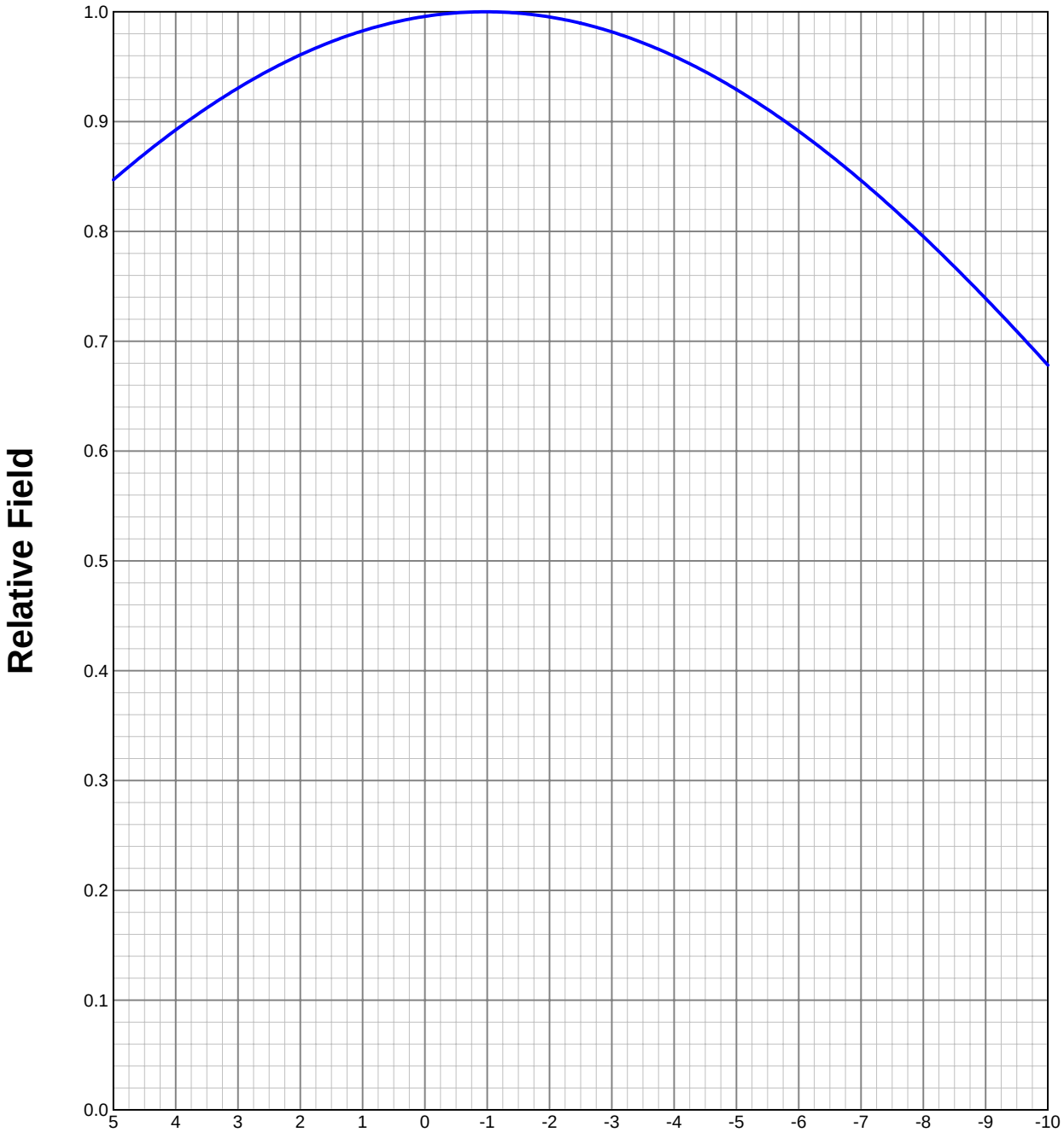
The power density was calculated for distances from the base of the tower to 1000 meters in 1 meter increments utilizing equation 10. This data is plotted below. The data demonstrates a slight increase in the downward radiation from the downward radiation predicted in the OET model for the non-beam tilted antenna. This data also shows that the maximum predicted power density at ground level is 0.86 μW/cm^2 less than 5% of the General Population/Uncontrolled permissible radiation of 200 μW/cm^2. The addition of beam tilt to the antenna will not have a significant impact on the environment and continues compliance with the FCC guidelines.



The licensee acknowledges his responsibility to participate in any required power reductions or cease operations to protect workers who might need to approach the antenna at distances significantly closer to the antenna that they would be impacted with non-ionizing radiation in excess of the permissible exposure standards and will cooperate with the site management and all users to protect workers from such exposure.

ELEVATION PATTERN

Type:	LPX6H		Channel:	291
Directivity:	Numeric	dBd	Location:	
Main Lobe:	1.91	2.81	Beam Tilt:	-1.00
Horizontal:	1.89	2.77	Polarization:	Circular



Preliminary, subject to final design and review.

TABULATED DATA FOR ELEVATION PATTERN

Type: LPX6H
Polarization: Circular

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
5.00	0.847	-1.44	-6.75	0.858	-1.33	-27.00	0.172	-15.29	-50.50	0.105	-19.60	-74.00	0.036	-28.79
4.75	0.859	-1.32	-7.00	0.846	-1.45	-27.50	0.177	-15.03	-51.00	0.107	-19.38	-74.50	0.034	-29.26
4.50	0.871	-1.20	-7.25	0.834	-1.57	-28.00	0.181	-14.84	-51.50	0.110	-19.19	-75.00	0.033	-29.74
4.25	0.882	-1.09	-7.50	0.822	-1.71	-28.50	0.184	-14.71	-52.00	0.112	-19.03	-75.50	0.031	-30.22
4.00	0.892	-0.99	-7.75	0.809	-1.84	-29.00	0.185	-14.64	-52.50	0.113	-18.90	-76.00	0.029	-30.71
3.75	0.903	-0.89	-8.00	0.795	-1.99	-29.50	0.186	-14.62	-53.00	0.115	-18.80	-76.50	0.028	-31.21
3.50	0.912	-0.80	-8.25	0.782	-2.14	-30.00	0.185	-14.65	-53.50	0.116	-18.73	-77.00	0.026	-31.72
3.25	0.922	-0.71	-8.50	0.768	-2.30	-30.50	0.184	-14.72	-54.00	0.116	-18.68	-77.50	0.024	-32.23
3.00	0.931	-0.63	-8.75	0.753	-2.46	-31.00	0.181	-14.85	-54.50	0.117	-18.65	-78.00	0.023	-32.75
2.75	0.939	-0.55	-9.00	0.739	-2.63	-31.50	0.177	-15.02	-55.00	0.117	-18.65	-78.50	0.022	-33.27
2.50	0.947	-0.48	-9.25	0.724	-2.80	-32.00	0.173	-15.23	-55.50	0.117	-18.66	-79.00	0.020	-33.80
2.25	0.954	-0.41	-9.50	0.709	-2.99	-32.50	0.168	-15.50	-56.00	0.116	-18.70	-79.50	0.019	-34.34
2.00	0.961	-0.35	-9.75	0.694	-3.18	-33.00	0.162	-15.80	-56.50	0.115	-18.75	-80.00	0.018	-34.88
1.75	0.967	-0.29	-10.00	0.678	-3.37	-33.50	0.156	-16.16	-57.00	0.115	-18.82	-80.50	0.017	-35.42
1.50	0.973	-0.24	-10.50	0.646	-3.79	-34.00	0.148	-16.57	-57.50	0.113	-18.91	-81.00	0.016	-35.96
1.25	0.978	-0.19	-11.00	0.614	-4.24	-34.50	0.141	-17.03	-58.00	0.112	-19.01	-81.50	0.015	-36.51
1.00	0.983	-0.15	-11.50	0.581	-4.72	-35.00	0.133	-17.54	-58.50	0.111	-19.13	-82.00	0.014	-37.06
0.75	0.987	-0.12	-12.00	0.547	-5.23	-35.50	0.124	-18.12	-59.00	0.109	-19.26	-82.50	0.013	-37.61
0.50	0.990	-0.08	-12.50	0.514	-5.79	-36.00	0.115	-18.76	-59.50	0.107	-19.41	-83.00	0.012	-38.16
0.25	0.993	-0.06	-13.00	0.480	-6.38	-36.50	0.106	-19.49	-60.00	0.105	-19.57	-83.50	0.012	-38.71
0.00	0.996	-0.04	-13.50	0.445	-7.02	-37.00	0.097	-20.29	-60.50	0.103	-19.75	-84.00	0.011	-39.25
-0.25	0.998	-0.02	-14.00	0.411	-7.72	-37.50	0.087	-21.20	-61.00	0.101	-19.94	-84.50	0.010	-39.80
-0.50	0.999	-0.01	-14.50	0.377	-8.46	-38.00	0.077	-22.23	-61.50	0.098	-20.14	-85.00	0.010	-40.34
-0.75	1.000	0.00	-15.00	0.344	-9.28	-38.50	0.068	-23.41	-62.00	0.096	-20.36	-85.50	0.009	-40.88
-1.00	1.000	0.00	-15.50	0.310	-10.16	-39.00	0.058	-24.78	-62.50	0.093	-20.59	-86.00	0.008	-41.41
-1.25	1.000	0.00	-16.00	0.278	-11.13	-39.50	0.048	-26.41	-63.00	0.091	-20.83	-86.50	0.008	-41.95
-1.50	0.999	-0.01	-16.50	0.245	-12.20	-40.00	0.038	-28.39	-63.50	0.088	-21.08	-87.00	0.008	-42.47
-1.75	0.997	-0.02	-17.00	0.214	-13.39	-40.50	0.028	-30.94	-64.00	0.086	-21.34	-87.50	0.007	-43.00
-2.00	0.995	-0.04	-17.50	0.183	-14.74	-41.00	0.019	-34.50	-64.50	0.083	-21.62	-88.00	0.007	-43.52
-2.25	0.993	-0.06	-18.00	0.153	-16.28	-41.50	0.009	-40.48	-65.00	0.080	-21.90	-88.50	0.006	-44.03
-2.50	0.990	-0.09	-18.50	0.125	-18.09	-42.00	0.000	-70.52	-65.50	0.078	-22.20	-89.00	0.006	-44.55
-2.75	0.986	-0.12	-19.00	0.097	-20.29	-42.50	0.009	-41.28	-66.00	0.075	-22.51	-89.50	0.006	-45.07
-3.00	0.982	-0.16	-19.50	0.070	-23.09	-43.00	0.017	-35.24	-66.50	0.072	-22.83	-90.00	0.005	-45.59
-3.25	0.977	-0.20	-20.00	0.045	-27.03	-43.50	0.026	-31.81	-67.00	0.070	-23.16			
-3.50	0.972	-0.25	-20.50	0.020	-33.90	-44.00	0.034	-29.44	-67.50	0.067	-23.50			
-3.75	0.966	-0.30	-21.00	0.003	-50.88	-44.50	0.041	-27.65	-68.00	0.064	-23.85			
-4.00	0.960	-0.36	-21.50	0.025	-32.19	-45.00	0.049	-26.22	-68.50	0.062	-24.21			
-4.25	0.953	-0.42	-22.00	0.045	-26.94	-45.50	0.056	-25.05	-69.00	0.059	-24.58			
-4.50	0.945	-0.49	-22.50	0.064	-23.88	-46.00	0.063	-24.08	-69.50	0.057	-24.96			
-4.75	0.938	-0.56	-23.00	0.082	-21.77	-46.50	0.069	-23.25	-70.00	0.054	-25.35			
-5.00	0.929	-0.64	-23.50	0.098	-20.19	-47.00	0.075	-22.54	-70.50	0.052	-25.74			
-5.25	0.920	-0.72	-24.00	0.113	-18.97	-47.50	0.080	-21.92	-71.00	0.049	-26.15			
-5.50	0.911	-0.81	-24.50	0.126	-18.00	-48.00	0.085	-21.39	-71.50	0.047	-26.57			
-5.75	0.901	-0.90	-25.00	0.138	-17.21	-48.50	0.090	-20.92	-72.00	0.045	-27.00			
-6.00	0.891	-1.00	-25.50	0.148	-16.57	-49.00	0.094	-20.52	-72.50	0.043	-27.43			
-6.25	0.881	-1.10	-26.00	0.158	-16.05	-49.50	0.098	-20.17	-73.00	0.040	-27.88			
-6.50	0.870	-1.21	-26.50	0.165	-15.62	-50.00	0.102	-19.86	-73.50	0.038	-28.33			

Preliminary, subject to final design and review.