



RADIO FREQUENCY IMPACT, SAFETY & STATEMENT OF COMPLIANCE

The licensee of WKEF is committed to the protection of station personnel and/or tower contractors working in the vicinity of the WKEF antenna and will reduce power or cease operation, when necessary, to ensure protection to personnel.

As shown in Appendix A the proposed WKEF channel 34 interim facility will operate with a maximum ERP of 112.5 kW from an elliptically polarized directional transmitting antenna with a centerline height of 343 meters above ground level (AGL). Considering the elevation pattern submitted elsewhere in this application, the vertical plane relative field factor is less than 0.100 at all depression angles greater than 7 degrees. The WKEF proposed STA interim facility is predicted to produce a worst-case power density at two meters above ground level, at 346.3 meters from the tower base, of $0.100 \mu\text{W}/\text{cm}^2$, which is 0.03% of the FCC guideline value of $395.33 \mu\text{W}/\text{cm}^2$ for an "uncontrolled" environment, and 0.006% of the FCC's guideline value for "controlled" environments. Therefore, pursuant to Section 1.1307(b)(3) of the FCC Rules, because the proposed facility would not exceed 5% of the uncontrolled and controlled exposure limits, the proposal's power density contribution is considered insignificant. (See Appendix A)

Further, the applicant will continue to cooperate and coordinate with other any other site users and reduce power or cease operation during times of service or maintenance of the transmission systems as necessary to avoid potentially harmful exposure to personnel. In light of the above, the proposed facility should be categorically excluded from RF environmental processing under Section 1.1307(b) of the Commission's Rules.

WKEF
Channel 34 - Dayton, Ohio
ERP = 112580.00 WATTS

APPENDIX A

Maximum ERP 112.58 kW

Polarization ----- 2 Circular
 Antenna Height Above Ground - 343 meters 1125.3 feet
 FCC Uncontrolled RFR Limit --- 395.33 $\mu\text{W}/\text{cm}^2$

Maximum Computed Power Density 0.100 $\mu\text{W}/\text{cm}^2$
 0.03% of limit

Angle Below Horizontal (degrees)	<Point X> Horiz Distance from tower to 2 m AGL (meters)	Slant Distance from antenna to Point X (meters)	Vertical Pattern (REL. FIELD)	WKEF ERP (kW)	WKEF Calculated Power Density $\mu\text{W}/\text{cm}^2$	Percent Limit	Limit Exceeded?
1			0.987	109.6719			
5	3897.6	3912.5	0.099	1.1034	0.005	0.00%	No
10	1933.9	1963.7	0.087	0.8521	0.015	0.00%	No
15	1272.6	1317.5	0.047	0.2487	0.010	0.00%	No
20	936.9	997.0	0.064	0.4611	0.031	0.01%	No
25	731.3	806.9	0.018	0.0365	0.004	0.00%	No
30	590.6	682.0	0.002	0.0005	0.000	0.00%	No
35	487.0	594.5	0.025	0.0704	0.013	0.00%	No
40	406.4	530.5	0.000	0.0000	0.000	0.00%	No
45	341.0	482.2	0.003	0.0010	0.000	0.00%	No
50	286.1	445.1	0.051	0.2928	0.099	0.02%	No
55	238.8	416.3	0.007	0.0055	0.002	0.00%	No
60	196.9	393.8	0.032	0.1153	0.050	0.01%	No
65	159.0	376.3	0.008	0.0072	0.003	0.00%	No
70	124.1	362.9	0.032	0.1153	0.058	0.01%	No
75	91.4	353.0	0.009	0.0091	0.005	0.00%	No
80	60.1	346.3	0.040	0.1801	0.100	0.03%	No
85	29.8	342.3	0.021	0.0496	0.028	0.01%	No
90	0.0	341.0	0.000	0.0000	0.000	0.00%	No

