

**TECHNICAL EXHIBIT**  
**APPLICATION FOR CONSTRUCTION PERMIT**  
**WPKF Facility ID 72380, Poughkeepsie, NY**  
**CH 241A, 3.5 KW 80.6M HAAT**

This minor modification application proposes to move the transmitting site of WPKF by 0.3KM due to the impending loss of its current location on the Hudson River Psychiatric Hospital. It is proposed to locate the antenna on an existing unregistered 147 foot (44.8M) cellular tower on the same property by extending the tower height by 20 feet (6.1M) to accommodate the antenna. The proposed tower height of 50.9M was run through the FCC's Towair program which indicates tower registration is not required.

**Spacing Study and 73.213 Status**

WPKF is not fully spaced under 73.207, however it was initially authorized by application BPH-19870414KH which was filed before October 1, 1989 and was fully spaced under the rules in effect at that time for 3 KW Class A stations. It has remained short spaced under 73.207 since first authorized and is thus grandfathered under 73.213(c)(1). As demonstrated in Figure 1, this proposal continues to be fully spaced under 73.213(c)(1) using the spacing requirements equivalent to those of prior rules.

**Maximum Effective Radiated Power**

The proposed effective radiated power of 3.5KW with an antenna height above average terrain of 80.6 Meters limits the F(50,10) 34dbu contour to just under 98KM and therefore complies with 73.213(c)(1) with respect to the maximum power permitted for an HAAT under 100 Meters.

Figure 1

Comstudy 2.2 Search of Channel 241 (96.1 MHz Class A3) at 41-44-15.7N, 73-54-19.5 W

Callsign	State	City	Frequency	Channel	ERP_w	Class	Status	Distance_km	Sep	Clr
WPKF	NY	POUGHKEEPSIE	96.1	241	4400	A	LIC	0.29	105	-104.7
WPKF	NY	POUGHKEEPSIE	96.1	241	125	A	LIC	3.92	105	-101.1
WPKF	NY	POUGHKEEPSIE	96.1	241	1700	A	LIC	3.92	105	-101.1
870331NY	NY	POUGHKEEPSIE	96.1	241	0	A	USE	4.49	105	-100.5
WVOS-FM	NY	LIBERTY	95.9	240	0	A	USE	67.53	64	3.5
WVOS-FM	NY	LIBERTY	95.9	240	6000	A	LIC	67.53	64	3.5
WXNY-FM	NY	NEW YORK	96.3	242	26000	B	LIC	109.46	105	4.5
WXNY-FM	NY	NEW YORK	96.3	242	12500	B	CP	109.22	105	4.2
WXNY-FM	NY	NEW YORK	96.3	242	26000	B	APP	109.52	105	4.5
WXNY-FM	NY	NEW YORK	96.3	242	6000	B	LIC	110.08	105	5.1
WXNY-FM	NY	NEW YORK	96.3	242	0	B	USE	110.08	105	5.1
WXNY-FM	NY	NEW YORK	96.3	242	4600	B	LIC	110.08	105	5.1
WSRS	MA	WORCESTER	96.1	241	0	B	USE	177.54	163	14.5
WSRS	MA	WORCESTER	96.1	241	16500	B	LIC	177.54	163	14.5
WSRS	MA	WORCESTER	96.1	241	20000	B	LIC	177.61	163	14.6
WSRS	MA	WORCESTER	96.1	241	13500	B	LIC	177.61	163	14.6
WFOX	CT	NORWALK	95.9	240	3000	A	LIC	79.55	64	15.6
WFOX	CT	NORWALK	95.9	240	0	A	USE	79.55	64	15.6
WCTO	PA	EASTON	96.1	241	0	B	USE	179.33	163	16.3
WCTO	PA	EASTON	96.1	241	50000	B	LIC	179.33	163	16.3
WPLJ	NY	NEW YORK	95.5	238	19000	B	LIC	86.29	69	17.3
WKSS	CT	HARTFORD-MERIDEN	95.7	239	3200	B	LIC	90.55	69	21.6
WKSS	CT	HARTFORD-MERIDEN	95.7	239	0	B	USE	90.55	69	21.6
WKSS	CT	HARTFORD-MERIDEN	95.7	239	16500	B	LIC	90.55	69	21.6
WTIC-FM	CT	HARTFORD	96.5	243	20000	B	LIC	91.56	69	22.6
WTIC-FM	CT	HARTFORD	96.5	243	0	B	USE	91.56	69	22.6
WTIC-FM	CT	HARTFORD	96.5	243	20000	B	LIC	91.56	69	22.6
WBEC-FM	MA	PITTSFIELD	95.9	240	0	A	USE	90.84	64	26.8
WBEC-FM	MA	PITTSFIELD	95.9	240	1000	A	LIC	90.84	64	26.8
WBEC-FM	MA	PITTSFIELD	95.9	240	2000	A	LIC	94.05	64	30.1
WYJB	NY	ALBANY	95.5	238	0	B	USE	100.13	69	31.1
WYJB	NY	ALBANY	95.5	238	12000	B	LIC	100.13	69	31.1
WJVC	NY	CENTER MORICHES	96.1	241	2650	A	LIC	137.08	105	32.1
870331MK	NY	CENTER MORICHES	96.1	241	0	A	USE	139.15	105	34.1
WAJZ	NY	VOORHEESVILLE	96.3	242	470	A	LIC	100.13	64	36.1
871215MC	NY	VOORHEESVILLE	96.3	242	0	A	USE	100.25	64	36.3

## **Radio Frequency Radiation Compliance**

The proposed antenna is an ERI LP-2E EPA type 3, full wave spaced 2 bay “rototiller” antenna located atop a self supported tower with its center of radiation at 47.9M above ground level with an effective radiated power of 3.5KW in both the horizontal and vertical planes.

The FCC’s “FM Model” computer program (version 2.10) was used to predict the power density at 2 meters above the ground. The ERP for each horizontal and vertical polarization was set at 3,500 Watts, and the antenna type was set to “ERI or Jampro JBCP Rototiller” with 2 elements and full wave spacing. The maximum predicted power density was determined to occur at a distance of 30.8 meters from the base of the tower and does not exceed  $15.9 \text{ microwatts/cm}^2$ , or 7.95% of the limit of  $200 \text{ microwatts/cm}^2$  for General Population / Uncontrolled exposure for FM stations. Therefore the proposed operation of WPKF does not exceed the General Population / Uncontrolled exposure for FM stations at ground level.

The tower is surrounded by a chain link fence with a locked gate. Signs are posted on the fence and at the tower base warning of the potential hazard. WPKF along with other users of the site will reduce power or cease operations as necessary to protect persons having access to the tower or antennas from RF exposure in excess of FCC guidelines.