

TECHNICAL EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
WSVO Facility ID 11665, Staunton, VA
CH 226A, 3.9 KW at 125M HAAT

This minor modification application proposes to move the transmitting site of WSVO by 10.2KM from its current location, increase the antenna height above average terrain to 125 meters and increase effective radiated power to 3.9 KW. It is proposed to locate the antenna on an existing unregistered self supported 114 foot microwave tower and increase the overall height by 16' to 130 feet (39.6M).

Spacing Study

This proposal is fully spaced with regard to 47 C.F.R. Section 73.207 as demonstrated in Figure 1 below.

Figure 1

Comstudy 2.2 Search of Channel 226 (93.1 MHz Class A6) at 38-14-32.6N, 78-59-24.0 W

Callsign	State	City	Freq	Channel	ERP_w	Class	Status	Distance_km	Sep	Clr
WSVO	VA	STAUNTON	93.1	226	0	A	USE	10.32	115	-104.7
WSVO	VA	STAUNTON	93.1	226	2800	A	LIC	10.2	115	-104.8
WAZR	VA	WOODSTOCK	93.7	229	8500	B1	LIC	48.28	48	0.3
WPAW	NC	WINSTON-SALEM	93.1	226	0	C	USE	233.98	226	8
WPAW	NC	WINSTON-SALEM	93.1	226	99000	C	LIC	233.97	226	8
WFLS-FM	VA	FREDERICKSBURG	93.3	227	0	B	USE	135.95	113	23
WFLS-FM	VA	FREDERICKSBURG	93.3	227	50000	B	LIC	135.95	113	23
WUVA	VA	CHARLOTTESVILLE	92.7	224	0	A	USE	53.01	31	22
WUVA	VA	CHARLOTTESVILLE	92.7	224	750	A	LIC	53.06	31	22.1
WAZR	VA	WOODSTOCK	93.7	229	0	B1	USE	76.22	48	28.2
WCCA-LP	VA	SCOTTSVILLE	93.5	228	100	LP100	LIC	61	29	32
WCWV	WV	SUMMERSVILLE	92.9	225	11000	B	LIC	145.53	113	32.5
WCWV	WV	SUMMERSVILLE	92.9	225	0	B	USE	145.53	113	32.5

Radio Frequency Radiation Compliance

The proposed antenna is an ERI LP-2E-HW EPA type 3, half wave spaced 2 bay “rototiller” antenna with its center of radiation at 37M above ground level with an effective radiated power of 3.9KW 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 3,900 Watts, and the antenna type was set to “ERI or Jampro JBCP Rototiller” with 2 elements and half wave spacing. The maximum predicted power density was determined to occur at a distance of 71 meters from the base of the tower and does not exceed $18.9 \text{ microwatts/cm}^2$, or 9.5% of the limit of $200 \text{ microwatts/cm}^2$ for General Population / Uncontrolled exposure for FM stations. Therefore the proposed operation of WSVO 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 will be posted on the fence and at the tower base warning of the potential hazard. WSVO along with other users of the site will reduce power or cease operation as necessary to protect persons having access to the tower or antennas from RF exposure in excess of FCC guidelines.