

**Comprehensive Engineering Exhibit  
Westchester, MA  
Facility ID No. 138663**

This exhibit is for a new translator, facility ID 138663 which is seeking a change in antenna type and orientation and a change in power from the current pending application. The proposed facility will be a fill-in translator for WSRS, Facility ID# 35225, Worcester MA.

It is proposed to locate the transmit antenna 96 meters above ground on a 99.1 meter self supported tower in Holden, MA as identified by ASR# 1007890 which also serves as an element in the WTAG AM antenna array. The proposed antenna is a horizontally polarized Scala CL-FM with an ERP of 0.100KW.

Below as Figure 1 is a spacing study from which it can be determined that this proposal is clear to all authorized facilities, and this proposal will not create any prohibited contour overlap.

Figure 2 is a map showing the contours of this proposal and that of the original application, along with the primary station.

#### **RF Radiation Compliance**

The proposed facilities were evaluated in terms of potential radio frequency radiation exposure at ground level in accordance with OET Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation."

The proposed antenna has been evaluated using "FM Model", as a worst case "Ring Stub" single bay being mounted with its center of radiation 96 meters above ground level, with an effective radiated power of 0.100 kilowatts in the horizontal plane.

At 2 meters above the surface, at 54 meters from the closest point of approach, this proposal will contribute worst case, .105 microwatts per square centimeter, or 0.0105% of the allowable ANSI limit for controlled exposure, and 0.0525% of the allowable limit for uncontrolled exposure. This figure is less than 5% of the applicable FCC exposure limit and thus is categorically excluded from environmental processing for purposes of RF compliance, pursuant to Section 1.1307(b)(3)(ii).

The tower is surrounded by a fence with a locked gate restricting access from the general public with appropriate warning signs posted. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to access the tower for maintenance or inspection.

**Figure 1. Spacing Study**

Comstudy 2.2 Search of Channel 249 (97.7 MHz Class D) at 42-20-09.7 N, 71-49-10.7 W									
Callsign	State	City	Freq	Channel	ERP_w	Class	Status	Distance_km	Clr
NEW	MA	WESTCHESTER	97.7	249	140	D	APP	0	-56.18 dB
NEW	MA	WORCESTER	97.3	247	3	D	APP	7.41	0.06 dB
WKAF	MA	BROCKTON	97.7	249	2050	A	LIC	59.82	0.27 dB
WKAF	MA	BROCKTON	97.7	249	2700	A	LIC	71.52	6.43 dB
WNRC-LP	MA	DUDLEY	97.5	248	100	LP100	LIC	33.67	8.87 dB
WCTY	CT	NORWICH	97.7	249	1900	A	LIC	98.56	13.73 dB
WCTY	CT	NORWICH	97.7	249	3000	A	LIC	98.56	13.80 dB
WKAF	MA	BROCKTON	97.7	249	0	A	USE	70.76	16.28 dB
WYAJ	MA	SUDBURY	97.7	249	4	D	LIC	34.21	16.06 dB
WJFD-FM	MA	NEW BEDFORD	97.3	247	50000	B	LIC	110.44	18.20 dB
WCTK	MA	NEW BEDFORD	98.1	251	47000	B	LIC	108.89	18.24 dB
WOKQ	NH	DOVER	97.5	248	50000	B	LIC	120.6	18.95 dB
WSNI	NH	KEENE	97.7	249	2150	A	LIC	76.88	19.09 dB
WJDF	MA	ORANGE	97.3	247	5800	A	LIC	54.92	19.62 dB
WHAI	MA	GREENFIELD	98.3	252	2000	A	LIC	72.73	21.58 dB
WJFD-FM	MA	NEW BEDFORD	97.3	247	29200	B	LIC	110.44	21.90 dB
WCTY	CT	NORWICH	97.7	249	0	A	USE	98.56	23.87 dB
W250AB	NH	MANCHESTER	97.9	250	250	D	LIC	78.57	25.70 dB
WUCS	CT	WINDSOR LOCKS	97.9	250	3400	A	LIC	95.08	25.46 dB
WILI-FM	CT	WILLIMANTIC	98.3	252	1050	A	LIC	79.6	26.59 dB
WAZK	MA	NANTUCKET	97.7	249	6000	A	CP	181.95	32.63 dB
WALK-FM	NY	PATCHOGUE	97.5	248	39000	B	LIC	194.11	33.59 dB
WAZK	MA	NANTUCKET	97.7	249	1750	A	LIC	181.95	33.89 dB
WHAI	MA	GREENFIELD	98.3	252	1450	A	LIC	71.45	34.96 dB
WALK-FM	NY	PATCHOGUE	97.5	248	20500	B	LIC	194.11	34.86 dB
NEW	CT	TORRINGTON	97.7	249	10	D	APP	124.01	34.01 dB
880816NC	MA	ORANGE	97.3	247	0	A	USE	52.99	35.34 dB
WAZK*	MA	NANTUCKET	97.7	249	0	A	USE	184.29	38.08 dB
WJBQ	ME	PORTLAND	97.9	250	16000	B	LIC	207.62	38.45 dB
DWXLJ-LP	MA	EAST HARWICH	97.7	249	100	LP100	LIC	165.04	38.32 dB
W246CC	CT	BOLTON	97.1	246	100	D	LIC	78.48	39.38 dB

**Figure 2. Contour Map**

