

TECHNICAL SUMMARY
APPLICATION FOR AN AUXILIARY OPERATION
FM STATION WTHT
AUBURN, MAINE
CHANNEL 260B 2.75 KW (ND) 227 m

1. The instant application is an auxiliary operation for FM station WTHT on channel 260B (99.9 MHz) at Auburn, Maine (BLH-19980825KD) The proposed WTHT auxiliary operation will be from ASRN 1021716 with a maximum nondirectional (ND) ERP of 2.75 kW. A Shively 6810, 1-bay antenna will be mounted at the 91 meter level on the existing tower which will result in an RCAMSL of 352 meters and an HAAT of 227 meters.

2. Compliance with Section 73.1675(a): Figure 1 demonstrates that the 1 mV/m contour of the WTHT auxiliary facility is located entirely within the 1 mV/m contour of the currently licensed WTHT main facility in accordance with section 73.1675(a).

3. RFR Compliance: The proposed WTHT auxiliary facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public based on the FCC's FM Model software. It is proposed to side-mount a Shively 6810, bay antenna at the 91 meter level on the existing tower. The total ERP is 5.5 kw (horizontal and vertical polarization). Figure 2 depicts the output of the FM Model program. As indicated, a maximum power density of 13.96 uW/cm^2 will occur at a point located 24 meters from the tower. This is only 7% of the FCC's recommended limit of 200 uW/cm^2 for FM channel 260 (99.9 MHz) for an uncontrolled environment. However, as this is a multiple-user site all existing and authorized broadcast facilities in the vicinity must be considered in the RFR evaluation. In this case, co-located WFNK(FM) on channel 298C1 (107.5 MHz) is the only other broadcast station in the vicinity. The WFNK(FM) calculation is summarized below:

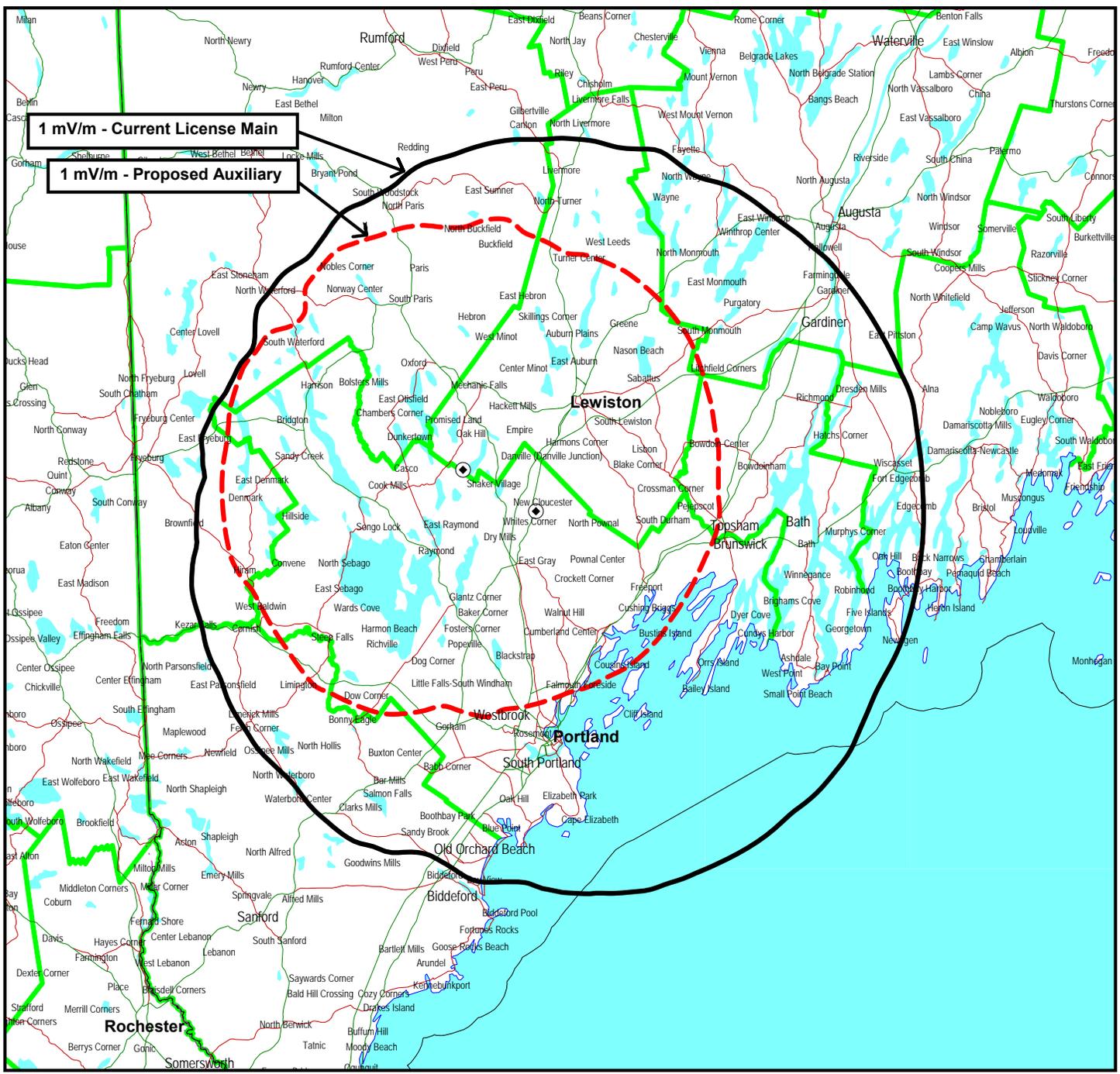
WFNK(FM), Ch. 298C1, total ERP 200 kw, VPRF 0.3, distance 138 m, power density 31.6 uW/cm^2 , 15.8% of limit

The summation of the above fractions of the ANSI limit for each of the above stations is 0.228. Since this is less than unity, the combined power density at 2 meters above

ground level will be less than the ANSI recommended limit applicable to general population/uncontrolled exposure areas. Thus, it is believed that the WTHT auxiliary facility is in full compliance with the FCC's requirements with regard to radio frequency radiation exposure.

Access to the transmitting site will be restricted and appropriately marked with rfr warning signs. Furthermore, as this is a multi-user site, a protocol will be in effect with the other stations in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing accepted RFR protective clothing, reducing power to an acceptable level or termination of transmitter output power all together until workers leave the restricted area.

Figure 1

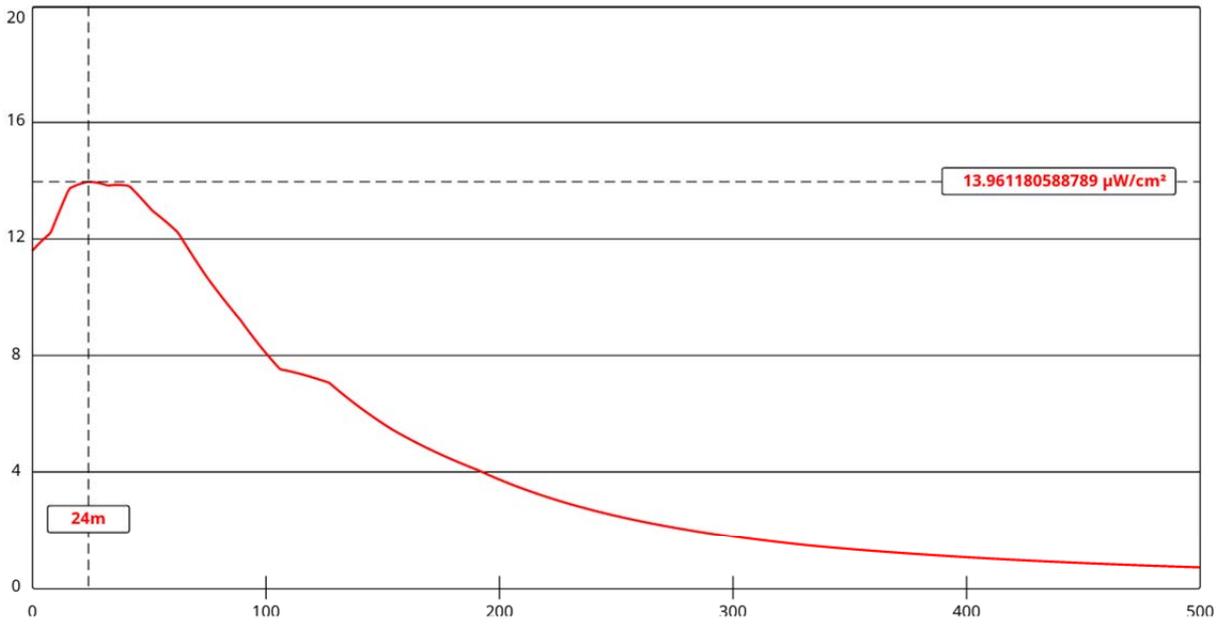


**COMPLIANCE WITH SECTION 73.1675(A)
PROPOSED AUXILIARY OPERATION**

STATION WTHT
AUBURN, MAINE
CH 260B (99.9 MHz) 2.75 KW 227 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 2



[View Tabular Results +](#)

Channel Selection	Channel 260 (99.9 MHz) ▾		
Antenna Type +	EPA Type 1: Ring-and-Stub or "Other" ▾		
Height (m)	<input type="text" value="91"/>	Distance (m)	<input type="text" value="500"/>
ERP-H (W)	<input type="text" value="2750"/>	ERP-V (W)	<input type="text" value="2750"/>
Num of Elements	<input type="text" value="1"/>	Element Spacing (λ)	<input type="text" value="1"/>
Num of Points	<input type="text" value="500"/>	<input type="button" value="Apply"/>	