

ENGINEERING REPORT COVERING
REQUEST FOR CONSTRUCTION PERMIT
ON BEHALF OF LANGER BROADCASTING GROUP, LLC
FOR WZBR 1410 KILOHERTZ
DEDHAM, MASSACHUSETTS

APRIL 2014

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SUMMARY

The engineering exhibit of which this statement is part was prepared on behalf of Langer Broadcasting Group, LLC, hereinafter referred to as “Langer”, in support of an application for construction permit for AM station WZBR Dedham, Massachusetts. Langer is the licensee of WZBR. The purpose of this application is to request a daytime power increase to 2.3 kilowatts using the existing non-directional daytime antenna system. No changes are proposed for the night operation. Under the terms of construction permit BP-20130610ACC, Langer is authorized to operate with daytime power of 0.61 kilowatts and nighttime power of 0.025 kilowatts employing a non-directional Valcom antenna system on the presently authorized frequency of 1410 kilohertz. (WZBR, formerly identified as WMSX, is currently operating under Program Test Authority as per license application BL-20131220HUK).

DAYTIME ALLOCATION CONSIDERATIONS

The geographic area encompassed by the daytime allocation study is vast and as a consequence, a conventional allocation map would be hard to read. Accordingly, several maps that provide greater allocation detail in pertinent areas are provided in lieu of a conventional map.

Figure 1 is a co-channel allocation map. The first adjacent channel mapping is provided on Figure 2. The licensed WZBR facility causes and receives interference from Massachusetts stations WLLH Lowell-Lawrence and WBSM New Bedford, and receives interference from WHTB Fall River. As can be seen in the tables below, the proposed WZBR facility eliminates caused interference and significantly reduces received interference with WLLH, eliminates received interference from WHTB and reduces caused and received interference with WBSM.

WLLH

Interference	Area (sq. km)	Population
WZBR Licensed Received from WLLH	85.7	120,513
WZBR Proposed Received from WLLH	12.0	13,116
Net Change	-73.7	-107,397

Interference	Area (sq. km)	Population
WZBR Licensed Caused to WLLH	6.3	4,837
WZBR Proposed Caused to WLLH	0.0	0
Net Change	-6.3	-4,837

WHTB

Interference	Area (sq. km)	Population
WZBR Licensed Received from WHTB	36.4	7,212
WZBR Proposed Received from WHTB	0.0	0
Net Change	-36.4	-7,212

Interference	Area (sq. km)	Population
WZBR Licensed Caused to WHTB	0.0	0
WZBR Proposed Caused to WHTB	0.0	0
Net Change	0.0	0

WBSM

Interference	Area (sq. km)	Population
WZBR Licensed Received from WBSM	600.4	294,271
WZBR Proposed Received from WBSM	286.1	199,919
Net Change	-314.3	-94,352

Interference	Area (sq. km)	Population
WZBR Licensed Caused to WBSM	633.2	99,663
WZBR Proposed Caused to WBSM	108.1	18,450
Net Change	-525.1	-81,213

Figure 3 is a second adjacent channel allocation map and Figure 4 is a third adjacent channel allocation map.

TECHNICAL DATA AND EXHIBITS

A map of the city of license service 5 mv/m contour for the proposed WZBR daytime operation is provided as Figure 5. 100% of Dedham will receive city grade service during the daytime hours. Figure 6 is a map that plots the proposed WZBR daytime 1000 mv/m contour. The proposed WZBR operation is compliant with Section 73.24(g) of the rules, as the population count is 62 persons within the 1000 mv/m contour.

FIELD MEASUREMENT DATA

All distance to contour calculations used in plotting the various allocation maps were based on M-3 soil conductivity data with several exceptions. Field strength measurement data provided in underlying WZBR construction permit BP-20130610ACC was used for this application as well as measurements taken in support of the complete non-directional proof of performance submitted with WZBR's pending license application BL-20131220HUK. Copies of the analysis graphs for both sets of measurements, which include radial conductivity summaries, are attached as Appendix A and B.

New supplemental measurement data is submitted with this report and was taken on three WZBR stub radials concurrent with the proof measurements submitted with BL-20131220HUK. All of the measurement data was taken by G. John Garrett. Mr. Garrett is has provided field measurement data for numerous Commission filings for over twenty years. Tables 1-3 are tabulations of the measurement data. Figures 7-9 are analysis graphs of the measured data. The FCC conductivity reference graph which was employed for the soil measurement conductivity analysis is attached as Figure 10. The meter used for the measurements was a Potomac Instruments model FIM-4100, serial number 134, last calibrated October 7, 2010. A Garmin GPS receiver was employed to enhance measurement location accuracy.

ANSI RADIATION GUIDELINES

A study of the proposed facility was conducted with respect to standards set forth in FCC Bulletin OST Number 65, Edition 97-01, regarding human exposure to radiofrequency radiation. The study was based on data provided in Tables 1 and 2 of Supplement A, "Predicted Distances for Compliance with FCC Limits". Based on Tables 1 and 2, a distance of 3.9 meters from the tower would have to be observed to achieve ANSI radiofrequency compliance.

When it is necessary for workers to be within the hazard area near the towers, an appropriate power reduction or temporary cessation of broadcasting will be implemented. Access to the towers is prevented by a fence with a locked gate. In addition, the entire site perimeter is surrounded by a locked fence. Signs, warning of a RF hazard, are conspicuously posted at the site.

DECLARATION

The foregoing was prepared by or under the immediate supervision of Charles A. Hecht of Charles A. Hecht & Associates, Inc., Freehold, New Jersey, whose qualifications are a matter of record with the Federal Communications Commission. All statements herein are true and correct of his knowledge except such statements made on information and belief, and as to those statements, he believes them to be true and correct under the penalty of perjury.

Respectfully submitted,

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