

# **ENGINEERING REPORT**

**MINOR CHANGE APPLICATION**  
**For**

**WWRZ(FM) – Fort Meade, FL**  
**Channel 252C2 – 98.3 MHz**  
**License No. BLH-19990330KA**

**March, 2007**

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Broadcast Engineering Consultants  
Coldwater, MI 49036

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(Exhibit Numbering is in response to FCC Online Form 301, Section III-B)

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# **DISCUSSION OF REPORT**

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This firm was retained to prepare the required engineering report in support of a minor change application for WWRZ(FM) License No. BLH-19990330KA. WWRZ(FM) is currently licensed with 26.0 kW (H)&(V) ERP at 209 meters HAAT on Channel 252C2. WWRZ(FM) currently serves Fort Meade, FL. This application seeks to relocate to an alternate tower location with 27 kW (H)&(V) ERP at 203 meters HAAT. A non-directional antenna will be employed. WWRZ(FM) will continue to serve Fort Meade, FL.

The WWRZ(FM) proposed site will continue to meet all the spacing requirements of 47 C.F.R. §73.207 toward other stations in the allocation with the exception of four domestic facilities. A tabulation of the existing and required spacing toward each of the other relevant stations is found in **Exhibit 26.1**. WWRZ(FM) will be short-spaced to WNUE-FM.L and WNUE.C, Titusville, FL and short-spaced to WXTB.L and WXTB.C, Clearwater, FL. Contour protections towards the two licensed and two construction permit facilities as required by §73.215 have been included in **Exhibit 30.1 to 30.4**. Inspection of all four concerns indicates the facilities are either currently licensed or authorized under §73.215. Per §73.215(b)(2)(iii), protection has only been afforded the presently licensed or authorized operating parameters and not maximum class facilities.

The proposed service contours have been calculated in accordance with the Rules, and the data obtained has been tabulated and plotted in this report. The plotted contours are found as **Exhibit 24.1** of this report. This exhibit shows the FCC 3.16 mV/m contour which serves the community of license, and the overall service provided by the 1.0 mV/m contour of the facility. The tabulation of the distances to the respective contours shown in this discussion is based on the use of the standard eight cardinal bearings, which were also used for the computation of the HAAT. However, the plotted contours shown in **Exhibit 24.1** and the contour used as the basis of the population figures are based on the use of a full 360 terrain radials. The NED03 second terrain database was used for all calculations in this application.

The proposed antenna will be mounted on a new structure to be constructed. FAA Form 7460-1 will be filed concurrently with this application. A copy of the USGS topographic mapping showing the site has been included as **Exhibit 23.2**.

The remainder of the information in this report and exhibit numbering is responsive to the Rules of the Commission, and provides the data for FCC Online Form 301, Section III-B.

The FM Broadcast facility proposed in this application is within the controlled and uncontrolled limits as set forth in the RF Exposure Compliance Worksheets, Worksheet #3, issue May 1999. A copy of Worksheet #3 will be supplied upon request. The RF radiation will not result in human exposure to radiofrequency radiation in excess of the applicable safety standards specified in §1.1307(b) of the Commission's rules. The facility will be properly marked with signs, and entry will be restricted by means of fencing with locked doors and/or gates. Any other means as may be required to protect employees and the general public will be employed.

## DISCUSSION OF REPORT (continued)

In the event work would be required in proximity to the antenna such that the person or persons working in the area would be potentially exposed to fields in excess of the guidelines set forth in OET Bulletin No. 65 (Edition 97-01), the transmitter power will be reduced or the station will cease operation during the critical period.

**DISTANCES TO CONTOURS:** The table below shows the distances to the 3.16 mV/m and 1.0 mV/m contours from the proposed facility using an ERP of 27.0 kW at an HAAT of 203 meters. These distances have been calculated based on the FCC F(50-50) curves.

N. Lat. = 275110    W. Lng. = 815202 HAAT and Distance to Contour - FCC Method - NED 03 SEC							
Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5	70-F5
000	35.8	208.2	27.0000	14.31	1.000	52.48	33.05
045	33.5	210.5	27.0000	14.31	1.000	52.66	33.23
090	42.1	201.9	27.0000	14.31	1.000	51.95	32.52
135	33.1	210.9	27.0000	14.31	1.000	52.70	33.26
180	45.9	198.1	27.0000	14.31	1.000	51.64	32.21
225	43.0	201.0	27.0000	14.31	1.000	51.88	32.45
270	44.2	199.8	27.0000	14.31	1.000	51.78	32.35
315	53.9	190.1	27.0000	14.31	1.000	50.97	31.53
Ave El= 41.43 M    HAAT= 202.57 M    AMSL= 244 M							