

**ENGINEERING REPORT
MINOR CHANGE APPLICATION**

For FM Station

WUBU(FM) – South Bend, IN
Channel 292A – 106.3 MHz

File No. BLH-19921016KA

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

DISCUSSION OF REPORT

This firm was retained to prepare the required engineering report in support of a minor change for FM Station WUBU(FM) South Bend, IN, License BLH-19921016KA. WUBU(FM) is currently licensed to operate with 3.0 kW ERP (H)&(V) at 89 m HAAT as a former Class A 3.0 kW station. In response to recent changes in the WUBU(FM) allocation, it has been determined a less restrictive DA pattern can be employed from the present antenna height and location. Continued operation at 3.0 kW utilizing an alternate DA pattern is requested. The facility will continue to serve South Bend on Channel 292A. Several errors in the WUBU(FM) license were also detected in the process of preparing this application. A minor correction of coordinates of one second latitude was discovered as well as errors in both COR AGL height and ground elevation AMSL. In addition, it was noted the antenna was mounted on a pole exceeding 20 feet above the roof level. No Antenna Structure Registration exists, however Research has uncovered a valid FAA Determination of No Hazard dating back the original WUBU(FM) licensing. ASR has since been obtained and supplied herein.

The Proposed WUBU(FM) allocation employs spacing protections under §73.207, contour protections under §73.215 and grandfathered Former Class A Rules under §73.213. A tabulation of the existing and required spacing toward each of the other relevant stations under §73.207 is found in **Exhibit 24.1**. The site for the Class A operation will remain unchanged and meets all the spacing requirements of 47 C.F.R. §73.207 toward other stations in the allocation with the exception of three stations. Short-spacings exists toward WSHI(FM), Columbia City, IN, WSRB(FM), Lansing, IL and WQLR(FM) Kalamazoo, MI. A copy of the former 3.0 kW Class A Spacings As Amended has been included in **Exhibit 27.1**. WUBU(FM) will remain fully spaced towards WSRB(FM) and WQLR(FM) under §73.213(c). Continued contour protection towards WSHI(FM) under §73.215 is requested, however as WSHI(FM) has been recently licensed under §73.215 itself, only the present operating parameters need be protected. Contour protections towards the new WSHI(FM) facility have been shown in **Exhibit 28.1**.

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 22.1** of this report. This exhibit shows the 3.16 mV/m contour that 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 22.1** and the contour used as the basis of the area and population computations shown in **Exhibit 22.1**, are based on the use of a full 360 terrain radials.

DISCUSSION OF REPORT (continued)

The antenna will continue to be mounted on top of an existing building. A copy of the recently obtained Antenna Structure Registration has been included as **Exhibit 21.1**. A copy of the vertical antenna plan has been included as **Exhibit 21.2**.

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 expected to be within the controlled and uncontrolled limits as set forth in §1.1310 of the Commission's rules. The applicant is not opposed to an RF measurement condition/restriction as a prerequisite to licensing. Presently the facility is properly marked with signs, and entry is restricted by means of fencing with locked doors and/or gates. Appropriate protocol is currently in place to protect employees and the general public.

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 3.0 kW at an HAAT of 92 meters. These distances have been calculated based on the FCC F(50-50) curves.

N. Lat. = 41 40 35 W. Lng. = 86 15 08						
HAAT and Distance to Contour - FCC Method - 30 Arc Sec.						
Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	211.8	111.2	3.0000	4.77	1.000	25.44
045	235.9	87.1	3.0000	4.77	1.000	22.66
090	220.2	102.8	1.2288	0.89	0.640	19.89
135	253.0	70.0	1.8723	2.72	0.790	18.08
180	250.4	72.6	3.0000	4.77	1.000	20.74
225	221.0	102.0	3.0000	4.77	1.000	24.45
270	216.7	106.3	3.0000	4.77	1.000	24.92
315	236.2	86.8	3.0000	4.77	1.000	22.61

Ave El= 230.65 M HAAT= 92.35 M AMSL= 323 M