

AMENDMENT TO BMPH-20051207AAI

**ENGINEERING REPORT
MINOR CONSTRUCTION
PERMIT MODIFICATION**

FOR

WNBY-FM.C – CH230C2
Newberry, MI
File No. BPH-20030930APD
December, 2005

COPYRIGHT 2006

MUNN-REESE, INC.
Broadcast Engineering Consultants
Coldwater, MI 49036

TABLE OF CONTENTS

Discussion of Report (As Amended)

Allotment Requirement

Exhibit 22.1 - Copy of Existing Antenna Structure Registration.

Exhibit 22.2 - Vertical Plan of Antenna System

Exhibit 22.3 - Tabulation of Operating Conditions (As Amended)

Exhibit 22.4 - Present and Proposed Service Contour Study (As Amended)

Community Coverage Requirement

Exhibit 23 - Alternate Propagation Methodology Coverage Study (As Amended)

Main Studio Location Requirement (see Discussion)

Interference Requirements

Separation Requirements

Exhibit 25.1 - Tabulation of Commercial Spacings

Exhibit 25.2 - Contour Protection Study Towards

ALLO 230A – Desperation Lake, ON (As Amended)

Exhibit 25.3 - Directional Antenna Study

RF Radiation Study Requirement

Exhibit 30.1 - RF Radiation Study (As Amended)

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

DISCUSSION OF REPORT (As Amended)

This firm was retained to prepare the required engineering report in support of a minor construction permit modification for File No. BPH-20030930APD, WNBY-FM.C, Newberry, MI. WNBY-FM is currently licensed to operate with 6.0 kW ERP (H)&(V) at 80 m HAAT on CH229A. WNBY-FM also holds a granted construction permit for operation on CH230C2 with 50.0 kW at 141 meters HAAT. It is requested to modify the existing construction permit parameters to a new site location with 50.0 kW at 135 meters HAAT while employing a directional antenna. The facility will continue to serve Newberry, MI.

The proposed site for the Class C2 operation meets all domestic spacing requirements of 47 C.F.R. §73.207 toward other stations in the allocation. A tabulation of the existing and required spacing toward each of the other relevant stations is found in **Exhibit 25.1**. The proposed site will be short-spaced to one Canadian Allotment, ALLO 230A, Desperation Lake, ON, CA. A special contour protection map has been included in **Exhibit 25.2** showing contour protections toward the Canadian Allotment.

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 22.4** of this report. This exhibit shows the 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 22.4**, are based on the use of a full 360 terrain radials. The NED 03 second terrain database has been used in calculation of both HAAT and contour distance computations.

Alternate propagation methodology (Longley/Rice) has been employed pursuant to §73.313(e) regarding community coverage requirements. Community coverage showings have been included in **Exhibit(s) 23**.

The antenna will be mounted on ASR No. 1060955. A copy of the existing Antenna Structure Registration has been included as **Exhibit 22.1**. A copy of the vertical antenna plan has been included as **Exhibit 22.2**. The proposed construction will not increase the overall tower height.

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.

DISCUSSION OF REPORT (continued)

The FM Broadcast facility proposed in this application will not result in human exposure to radiofrequency radiation in excess of the applicable safety standards specified in §1.1310 of the Commission's rules. **Exhibit 30.1** provides the details of the study that was made to demonstrate compliance. 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.

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 50.0 kW at an HAAT of 135 meters. These distances have been calculated based on the FCC F(50-50) curves.

N. Lat. = 46 26 58 W. Lng. = 85 06 04							
HAAT and Distance to Contour - FCC Method - NED03 Arc Sec.							
Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5	70-F5
000	213.3	154.7	37.4113	15.73	0.865	50.21	30.85
045	195.7	172.3	50.0000	16.99	1.000	54.85	34.98
090	225.9	142.1	50.0000	16.99	1.000	51.13	31.73
135	256.1	111.9	50.0000	16.99	1.000	46.74	28.59
180	234.0	134.0	50.0000	16.99	1.000	49.98	30.86
225	225.6	142.4	50.0000	16.99	1.000	51.16	31.76
270	228.2	139.8	50.0000	16.99	1.000	50.80	31.48
315	283.6	84.4	18.0000	12.55	0.600	33.67	19.72
Ave El= 232.82 M HAAT= 135.18 M AMSL= 368							