

**ENGINEERING REPORT
Minor Construction Permit
Modification Application**

For

NEW.C - McMillan, MI
Channel 244C2 - 96.7 MHz
File No. BNPH-20050103AEL

November, 2005

COPYRIGHT 2005

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

TABLE OF CONTENTS

Discussion of Report

Allotment Requirement

Exhibit 22.1 – Topographic Map of Proposed Site

Exhibit 22.2 - Vertical Plan of Antenna System

Community Coverage Requirement

Exhibit 23.1 - Present and Proposed Service Contour Study

Main Studio Location Requirement

Exhibit 24.1 - Tabulation of Operating Conditions

Interference Requirements

Separation Requirements

Exhibit 25.1 - Tabulation of Commercial Spacings

RF Radiation Study Requirement (See Discussion)

(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 this minor modification to Construction Permit No. BNPFT-20050103AEL for a new Channel 244C2 station licensed to McMillan, MI. The current Construction Permit authorizes operation of 50.0 kW at 107 meters HAAT. This instant application proposes operation of 50.0 kW at 126 meters HAAT from a new tower location.

The proposed site for the Class C2 operation meets all the 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**. Additional tabulations will be supplied to the Commission upon request.

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 23.1** 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 23.1** are based on the use of a full 360 terrain radials. The 30 second NGDC terrain database has been used in calculation of both HAAT and contour distance computations.

The antenna will be mounted on a new tower. FCC TOWAIR has been consulted and Antenna Structure Registration is required. FAA Form 7460-1 has been filled concurrently with this application. Upon receipt of FAA "Determination of No Hazard", Antenna Structure Registration will be obtained and supplied. A portion of topographic mapping showing the site has been included in **Exhibit 22.1**. A copy of the vertical antenna plan has been included as **Exhibit 22.2**.

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.

DISCUSSION OF REPORT (continued)

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 §1.1310 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.

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 126 meters. These distances have been calculated based on the FCC F(50-50) curves.

N. Lat. = 46 32 02 W. Lng. = 85 35 24							
HAAT and Distance to Contour - FCC Method - 30 Arc Sec.							
Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5	70-F5
000	216.4	153.6	50.0000	16.99	1.000	52.67	33.01
045	233.2	136.8	50.0000	16.99	1.000	50.39	31.17
090	248.0	122.0	50.0000	16.99	1.000	48.27	29.66
135	238.1	131.9	50.0000	16.99	1.000	49.68	30.65
180	255.7	114.3	50.0000	16.99	1.000	47.12	28.86
225	270.4	99.6	50.0000	16.99	1.000	44.68	27.10
270	253.8	116.2	50.0000	16.99	1.000	47.41	29.07
315	235.7	134.3	50.0000	16.99	1.000	50.03	30.90
Ave El= 243.91 M HAAT= 126.09 M AMSL= 370 M							

MUNN-REESE, INC.

Broadcast Engineering Consultants
Coldwater, MI 49036