

ENGINEERING REPORT
Minor Change Application
Change in Site Location and Frequency

K280AW – Hoyt Lakes, MN

File No. BLFT-19781002JU

July, 2003

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

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(Exhibit numbering is in response to FCC Online Form 349, Section III-A)

Discussion

This firm has been retained to prepare the required engineering report in support of a Minor Change Application for FM translator K280AW, Hoyt Lakes, MN, IN, File No. BLFT-19781002JU. The facility serves as a translator for non-commercial FM station KBHW, International Falls, MN. KBHW operates on Channel 258C1, 99.5 MHz. The proposed translator will operate on Channel 281D with 225 watts at a max HAAT of 86 meters.

It has been determined the translator may be used in the area without interference to any existing FM broadcast station or translator. Allocation details are found in **Exhibit 12.1**. **Exhibit 11.5** of this report is a map showing the relationship of the primary station protected contour to the protected contour of the translator station. The translator site is outside the primary contour, and the 1 mV/m (60 dBu) contour of the translator extends beyond the primary station 1 mV/m contour.

The proposed translator is located within 320 kilometers of the border between the United States of America and Canada. This proposal meets the requirements of 47 C.F.R. §74.1235(d)(3).

The translator will employ a one bay circularly polarized antenna. The antenna will be mounted on an existing water tower as shown. The FAA TOWAIR program has been consulted and FCC Antenna Structure Registration is not required. A 7.5 minute topographical map of the transmitter site has been included as **Exhibit 11.1**. Data concerning the site was supplied by the applicant and the site owner, and is believed correct.

The proposed facility meets the requirements of the Rules for operation without a licensed operator in attendance. The transmitter site may be reached promptly at all hours and in all seasons. The transmitter will be equipped with proper control and interface circuits which will place the translator in a non-radiating condition in the event the proper incoming signal is absent. The transmitter and controls will be placed in a locked area to prevent unauthorized tampering with the equipment. A person or persons will be assigned to observe the signals of the station each day, and to take corrective action if required. The equipment proposed for operation is listed in the type-approved list of the Commission.

Prompt suspension of the translator operation will be made, in the event of equipment failure that could cause operation outside the specifications of the Rules. The data contained in this report is responsive to the Rules of the Commission, and provides information for FCC Form 349.

Discussion (continued)

RADIATION PROTECTION: The FM broadcast facility proposed in this application is within the limits as set forth in the FCC Form 349 Worksheet #2 (RF Exposure Compliance), issued March, 2001. As this facility complies with Worksheet #2, no RF study need be supplied. The facility will remain properly marked with signs, and entry will continue to 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 following tabulation of the distances to the proposed service contours results from calculations performed in accordance with §73.313(d) and §73.333 Figure 1.

Munn-Reese, Inc. - Coldwater, MI 49036 N. Lat. = 47 31 08 W. Lng. = 92 10 19 HAAT and Distance to Contour - FCC Method - 30 Arc Sec.						
Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	465.0	40.0	0.2250	-6.48	1.000	7.93
030	491.1	13.9	0.2250	-6.48	1.000	6.91
060	462.0	43.0	0.2250	-6.48	1.000	8.26
090	462.0	43.0	0.2250	-6.48	1.000	8.26
120	468.2	36.8	0.2250	-6.48	1.000	7.59
150	452.7	52.3	0.2250	-6.48	1.000	9.25
180	441.5	63.5	0.2250	-6.48	1.000	10.17
210	426.3	78.7	0.2250	-6.48	1.000	11.20
240	416.7	88.3	0.2250	-6.48	1.000	11.82
270	432.5	72.5	0.2250	-6.48	1.000	10.79
300	458.8	46.2	0.2250	-6.48	1.000	8.62
330	462.8	42.2	0.2250	-6.48	1.000	8.18
Ave El= 453.30 M HAAT= 51.70 M AMSL= 505 M						