

Engineering Report (As Amended)

MINOR CHANGE APPLICATION

For

KRGN(FM)

Channel 276A – Amarillo, TX

Frequency change and upgrade to

Channel 275C1 – Amarillo, TX

Per MM Docket #87-402

January, 2005

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

MUNN-REESE, INC.

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DISCUSSION OF REPORT (As Amended)

This firm was retained to prepare the required engineering report in support of a minor change application for KRGN, License No. BMLED-19950509KB. This application proposes modified operating parameters to recently expired Construction Permit BPED-20010910AAC. KRGN currently operates on Channel 276A with 3.0 kW ERP at 91 meters HAAT. KRGN serves Amarillo, TX. This application seeks a correction of transmitter coordinates and a change frequency and class to Channel 275C1. This channel was allocated to KRGN in MM Docket #87-402. Channel 275C1 is shown in the FM Table of Allotments for Amarillo and was reserved for KRGN. The facility will operate with 100 kW ERP at **88 meters HAAT** and continue to serve Amarillo, TX. A new FM antenna will also be employed.

The proposed site for the Class C1 operation meets all the spacing requirements of 47 C.F.R. §73.207 toward other stations in the allocation with the exception of one station. A tabulation of the existing and required spacing toward each of the other relevant stations is found in **Exhibit 25.1**. Contour protections as required by §73.215 have been included in **Exhibit 29.1**. **Exhibit 29.1** is a contour protection study as required by §73.215 towards a license held by Tahoka Radio, Inc. This license is also for operation on Channel 278C2 under the call letters of KJNZ, Hereford, TX. This Exhibit depicts KJNZ at the maximum allowable Class C2 parameters to afford maximum protection.

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 that is 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** and the contour used as the basis of the area and population computations shown in **Exhibit 23.2**, are based on the use of a full 360 terrain radials.

The antenna will be mounted on an existing tower bearing FCC Antenna Structure Registration No. 1044767. As the overall height of the tower will not be increased, the FAA need not be notified. A copy of the existing ASR for Tower 1044767 has been included in **Exhibit 22.1**. A vertical antenna plan depicting the placement of the antenna on the tower has been included in **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.

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 §1.1307(b) of the Commission's rules. **Exhibit 30** provides the details of the study that was made to demonstrate compliance. The facility will be 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 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 100 kW at an **HAAT of 88 meters**. These distances have been calculated based on the FCC F(50-50) curves.

N. Lat. = 35 15 41 W. Lng. = 101 52 52							
HAAT and Distance to Contour - FCC Method - 30 Arc Sec.							
Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5	70-F5
000	1025.9	136.1	100.0000	20.00	1.000	56.56	36.58
045	1046.8	115.2	100.0000	20.00	1.000	53.51	34.09
090	1086.8	75.2	100.0000	20.00	1.000	45.68	27.76
135	1101.4	60.6	100.0000	20.00	1.000	42.26	25.33
180	1108.8	53.2	100.0000	20.00	1.000	40.09	23.90
225	1110.7	51.3	100.0000	20.00	1.000	39.44	23.49
270	1078.0	84.0	100.0000	20.00	1.000	47.62	29.23
315	1030.2	131.8	100.0000	20.00	1.000	55.94	36.07
Ave El= 1073.60 M HAAT= 88.40 M AMSL= 1162 M							