

ENGINEERING REPORT

MINOR CONSTRUCTION
PERMIT APPLICATION

FOR

KMA-FM – CH256C1
Clarinda, IA

New Auxiliary Facility

March, 2010

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

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Section 307(b) Requirement (None)

(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 construction permit application for KMA-FM, Clarinda, IA, License No. BLH-20100303ACL. KMA-FM is currently licensed to operate with 100.0 kW ERP (H)&(V) at 647 meters AMSL on CH256C1. This minor construction permit application requests a new auxiliary operation from the same site location with 46.0 kW ERP (H)&(V) at 496 meters AMSL. The auxiliary facility will operate on the main channel of CH256C1 (99.1 MHz) utilizing a non-directional antenna. The proposed auxiliary service contour will remain wholly within the licensed service contour.

The proposed auxiliary antenna will be mounted on existing Antenna Structure Registration 1268181. A copy of the existing ASR has been included in **Exhibit 24.1**. As this proposal will not increase the overall tower height, it is believed the FAA need not be notified. A copy of the vertical antenna plan has been included as **Exhibit 24.2**.

The proposed KMA-FM auxiliary 60 dBu F(50:50) service contour has been calculated in accordance with the Rules, and the data obtained has been tabulated and plotted in this report. The plotted auxiliary contour and licensed 60 dBu F(50:50) contours are found in **Exhibit 24.4** of this report. The proposed auxiliary contour is contained wholly within the licensed contour as stated previously. The tabulation of the distances to the auxiliary contour 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 24.4**, are based on the use of a full 360 terrain radials. The USGS 03 second terrain database has been used in calculation of both HAAT and contour distance computations. Community coverage of the primary city of license of Clarinda, IA is not required for auxiliary operation.

As the proposed Class C1, 60 dBu F(50:50) service contour has been shown to be wholly contained with the licensed Class C1, 60 dBu F(50:50) service contour, no further allocation showings are believed required. 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.

RADIATION PROTECTION: 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 32.1** 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 60 dBu F(50:50) 1.0 mV/m contour from the proposed facility using an ERP of 46.0 kW at an HAAT of 148 meters. These distances have been calculated based on the FCC F(50-50) curves.

| N. Lat. = 404804 W. Lng. = 945406 HAAT and Distance to Contour, FCC, FM 2-10 Mi, 51 pts Method - USGS 03 SEC | | | | | | |
|--|-------|-------|---------|-------|-------|-------|
| Azi. | AV EL | HAAT | ERP kW | dBk | Field | 60-F5 |
| 000 | 338.0 | 158.0 | 46.0000 | 16.63 | 1.000 | 52.48 |
| 045 | 367.8 | 128.2 | 46.0000 | 16.63 | 1.000 | 48.40 |
| 090 | 358.5 | 137.5 | 46.0000 | 16.63 | 1.000 | 49.72 |
| 135 | 356.7 | 139.3 | 46.0000 | 16.63 | 1.000 | 49.98 |
| 180 | 363.1 | 132.9 | 46.0000 | 16.63 | 1.000 | 49.07 |
| 225 | 317.4 | 178.6 | 46.0000 | 16.63 | 1.000 | 54.72 |
| 270 | 341.8 | 154.2 | 46.0000 | 16.63 | 1.000 | 52.00 |
| 315 | 340.9 | 155.1 | 46.0000 | 16.63 | 1.000 | 52.11 |
| Ave El= 348.04 M HAAT= 147.96 M AMSL= 496 M | | | | | | |