

ENGINEERING REPORT

FM Translator Minor Construction Permit Application

for

K293BM.L – Clinton, MO

License File No.

BLFT-20110919ACV

Minor Frequency &
Directional Antenna Change

October, 2011

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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 construction permit application for FM translator K293BM.L, Clinton, MO, License File No. BLFT-20110919ACV. K293BM.L presently operates on 106.5 MHz with 0.04 kW of horizontal only directional power with an antenna COR of 241 meters AMSL. A minor change in frequency and directional antenna pattern are requested from the same site location. The facility will operate on CH296D, 107.1 MHz with 5 watts ERP using a new horizontal only directional pattern. The translator will continue to rebroadcast primary station of KLRQ(FM) – Clinton, MO, CH241C0, Facility ID No. 3429 as a Fill-In Translator.

The proposed facility will remain at the same tower location. A copy of the USGS Topographic Map for the site has been included in **Exhibit 13.1**. A copy of the USGS Aerial Photograph for the site has been included in **Exhibit 13.2**. A copy of the vertical antenna system has been included in **Exhibit 13.3**. TOWAIR has been consulted and the proposed tower does not require Antenna Structure Registration.

It has been determined the translator may be used in the area without interference to any existing FM broadcast station or facility. General allocation details are found in **Exhibit 13.6**. There is one facility, KMJK(FM) – North Kansas City, MO close enough to merit further protection studies. Therefore an FMCommander™, map and tabulation of contours toward KMJK(FM) has been included in **Exhibit 13.7**. It is believed sufficient clearance exists precluding the need for additional contour protection showings.

The translator site and proposed 60 dBu contour lie inside of the KLRQ(FM) 60 dBu service contour therefore qualifying this service as an FM Fill-In Translator. A map of the proposed service area in relation to the primary station 60 dBu service contour has been included in **Exhibit 13.5**.

Regarding protection of international concerns, the facility is and will remain more than 320 km of the common border between the United States and Canada or Mexico. As a result, it is believed no further international showings are required.

The proposed operating parameters have been changed from the licensed values, however the proposed service contour serves a portion of the present service area as seen in **Exhibit 13.4**.

The applicant would like to note the use of the USGS 03 second terrain database for all HAAT, allocation and contour showings used for this Form 349 Translator filing.

RADIATION PROTECTION: The Commission requires an engineering study regarding compliance with the guidelines for human protection from radiofrequency radiation. This report section is in response to that provision of the Rules. The current Federal Communications Commission guidelines for RF radiation protection are set forth in OET Bulletin No. 65 (Edition 97-01), and the accompanying Supplement A, (Edition 97-01).

Discussion (continued)

The FM Broadcast facility proposed in this application will not produce human exposure to radiofrequency radiation in excess of the applicable safety standards specified in §1.1310 of the Commission's rules. **Exhibit 17.1** provides the details of the study that was made to demonstrate compliance. The facility is properly marked with signs, and entry is 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 utilizing the USGS 03 second terrain database.

N. Lat. = 382647.0 W. Lng. = 941203.0						
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	269.5	-28.5	0.0000	-63.01	0.010	0.16
030	261.1	-20.1	0.0000	-55.05	0.025	0.39
060	251.1	-10.1	0.0000	-50.97	0.040	0.63
090	229.9	11.1	0.0000	-50.97	0.040	0.63
120	257.9	-16.9	0.0000	-52.38	0.034	0.53
150	266.5	-25.5	0.0000	-63.01	0.010	0.16
180	263.0	-22.0	0.0000	-63.01	0.010	0.16
210	276.7	-35.7	0.0003	-35.05	0.250	1.61
240	259.0	-18.0	0.0034	-24.73	0.820	2.44
270	243.6	-2.6	0.0045	-23.46	0.950	2.62
300	243.9	-2.9	0.0011	-29.57	0.470	1.87
330	250.3	-9.3	0.0000	-56.99	0.020	0.31
Ave El= 256.05 M HAAT= -15.05 M AMSL= 241.0 M						