ENGINEERING REPORT

FM Translator Minor Construction Permit Application

for

K206DQ – Yankton, SD

Lic No. BLFT-20070910AAO

September, 2009

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TABLE OF CONTENTS

(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 K206DQ, Yankton, SD, License No. BLFT-20070910AAO. K206DQ presently operates on 89.1 MHz with 45 watts of non-directional power with an antenna COR of 408 meters AMSL. A simple I.F. Frequency hop from the present site and height is requested. Operation on CH259D with 45 watts ERP at 408 meters AMSL is requested. The Translator will rebroadcast new primary station WNAX-FM, Yankton, SD (Facility ID No. 57839) as a Fill-In Translator.

The existing tower bears Antenna Structure Registration Number 1234764. A copy of the existing ASR has been included in ***Exhibit 12.1***. A copy of the vertical antenna system has been included in ***Exhibit 12.2***. It has been determined the translator may be used in the area without interference to any existing FM broadcast station or facility. Allocation details are found in ***Exhibit 12.5***. It is believed sufficient clearance exists precluding the need for additional contour protection showings. The applicant would like to note the max HAAT value as well as all allocation and contour showings have been determined using the 30 sec NGDC terrain database.

The Translator site lies inside of the of the primary contour of WNAX-FM, and the 1 mV/m (60 dBu) contour of the proposed Translator is contained wholly within the WNAX-FM station primary contour. A map of the proposed service area in relation to the primary station service contour has been included in ***Exhibit 12.4.***

Regarding protection of international concerns, the present facility is and will remain more than 320 km from the common border between the United States and Canada or Mexico. As a result, 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 12.3***.

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 §1.1307(b)(3) of the Commission's rules concerning RF contributors of less than 5%. ***Exhibit 16.1*** 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.

N. Lat. = 425216.0 W. Lng. = 972233.0
HAAT and Distance to Contour,
FCC, FM 2-10 Mi, 51 pts Method - NGDC 30 SEC

Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	382.8	25.2	0.0450	-13.47	1.000	4.58
030	373.6	34.4	0.0450	-13.47	1.000	4.90
060	356.3	51.7	0.0450	-13.47	1.000	6.06
090	354.0	54.0	0.0450	-13.47	1.000	6.19
120	368.3	39.7	0.0450	-13.47	1.000	5.29
150	392.3	15.7	0.0450	-13.47	1.000	4.58
180	400.7	7.3	0.0450	-13.47	1.000	4.58
210	388.7	19.3	0.0450	-13.47	1.000	4.58
240	401.7	6.3	0.0450	-13.47	1.000	4.58
270	381.6	26.4	0.0450	-13.47	1.000	4.58
300	419.6	-11.6	0.0450	-13.47	1.000	4.58
330	399.5	8.5	0.0450	-13.47	1.000	4.58

Ave El= 384.92 M HAAT= 23.08 M AMSL= 408.0