

ENGINEERING REPORT

FM Translator Minor Construction Permit Application

for

K212EL – Enid, OK

Lic No. BLFT-19971229TF

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TABLE OF CONTENTS

Discussion of Report

FM Booster/Fill-in Translator Requirements (See Discussion)

Interference Requirements

Exhibit 12.1 - Copy of Existing Antenna Structure Registration

Exhibit 12.2 - Vertical Plan of Antenna System and Support Tower

Exhibit 12.3 - Present vs Proposed Service Contour Study

Exhibit 12.4 - Proposed vs Primary Station Service Contour Study

Contour Overlap Requirements

Exhibit 12.5 - Tabulation of Proposed Allocation

Exhibit 12.6 - §74.1204(d) Waiver Request Toward K262BI - Enid, OK

TV Channel 6 Protection Requirements (See Discussion)

Unattended Operation Requirements (See Discussion)

Multiple Translator Requirements (See Discussion)

RF Radiation Study Requirement

Exhibit 16.1 - RF Compliance Study

(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 K212EL, Enid, OK, License No. BLFT-19971229TF. K212EL presently operates on 90.3 MHz with 250 watts of non-directional power with an antenna COR of 450 meters AMSL. A minor I.F. frequency change and correction of coordinates and ground elevation are requested from the same site and height location. Operation on CH265D with 250 watts ERP at 449 meters AMSL is requested. The Translator will rebroadcast new FM station KKRD(FM), Enid, OK, CH216A, Facility ID No. 19603.

The existing tower bears Antenna Structure Registration Number 1011491. 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**. As this proposal will not increase the overall tower height, it is believed the FAA need not be notified.

It has been determined the translator may be used in the area without interference to any existing FM broadcast station or facility with the exception of a vacant allotment/rulemaking for CH268C3, Okeene, OK and third adjacent channel translator K262BI, Enid, Etc., OK. Under current FCC policy, vacant allotments need not be protected at the rulemaking stage. Concerning third adjacent channel station K262BI, a §74.1204(d) waiver request for given third adjacent channel interference is requested. Full protection will be afforded K262BI as the calculated interference area will not reach the ground nor a 9 meter artificial plane representing a standard two story building when taking into account the downward radiation characteristics of the antenna as supplied by the antenna manufacturer. A copy of the downward radiation study and antenna manufacturer specifications has been included in **Exhibit 12.6**. The remainder of the allocation details are found in **Exhibit 12.5**. It is believed sufficient clearance exists precluding the need for additional contour protection showings.

The Translator site lies inside of the of the primary contour of KKRD(FM), however the 1 mV/m (60 dBu) contour of the proposed Translator extends beyond the KKRD(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. = 362428.0 W. Lng. = 975954.0						
HAAT and Distance to Contour						
V-Soft 3-16 km, 131 pts Method - NGDC 30 SEC						
Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	398.6	50.4	0.2500	-6.02	1.000	9.31
030	394.4	54.6	0.2500	-6.02	1.000	9.72
060	393.9	55.1	0.2500	-6.02	1.000	9.76
090	385.5	63.5	0.2500	-6.02	1.000	10.43
120	383.6	65.4	0.2500	-6.02	1.000	10.57
150	380.2	68.8	0.2500	-6.02	1.000	10.81
180	363.8	85.2	0.2500	-6.02	1.000	11.91
210	368.5	80.5	0.2500	-6.02	1.000	11.61
240	382.9	66.1	0.2500	-6.02	1.000	10.62
270	389.2	59.8	0.2500	-6.02	1.000	10.16
300	393.9	55.1	0.2500	-6.02	1.000	9.77
330	401.5	47.5	0.2500	-6.02	1.000	9.00
Ave El= 386.33 M HAAT= 62.67 M AMSL= 449						