

ENGINEERING REPORT

FM Translator Minor Construction Permit Application

for

K222BU – Marked Tree, AR

Lic No. BLFT-20091029ABT

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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 K222BU (formerly K276FD), Marked Tree, AR, License No. BLFT-20091029ABT. K222BU presently operates on 92.3 MHz with 200 watts of directional power with an antenna COR of 77 meters AMSL. A minor frequency change is requested from an alternate site and height. Operation on CH224D with 250 watts ERP at 216 meters AMSL is requested. The Translator will rebroadcast new primary station KDEX(FM), Lake City, AR (Facility ID No. 53472) as a Fill-In Translator.

The existing tower bears Antenna Structure Registration Number 1225967. 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 translator operation. 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 use of the NGDC 30 second terrain database for all HAAT, allocation and contour showings.

The Translator site lies inside of the primary contour of KDEX(FM), and the 1 mV/m (60 dBu) contour of the proposed Translator is contained wholly within the KDEX(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**.

The applicant would like to note this proposed CH224D facility will be di-plexed into the existing K298AV – Jonesboro, AR translator operation. While no change in the K298AV antenna COR or ERP will result from this proposal, the existing K298AV non-directional one bay ERI 100-1 antenna will be replaced with a broadband non-directional one bay Nicom BKG-77-1 antenna. The applicant intends to take spurious emissions measurements documenting compliance of the di-plexed operation as well as file concurrent Form 350 applications for CH224D covering the pending construction permit grant, and for K298AV notifying of the antenna replacement and change in TPO.

Discussion (continued)

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).

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 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. = 354927.0 W. Lng. = 904448.0						
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	107.9	108.1	0.2500	-6.02	1.000	13.37
030	111.3	104.7	0.2500	-6.02	1.000	13.15
060	92.2	123.8	0.2500	-6.02	1.000	14.29
090	77.4	138.6	0.2500	-6.02	1.000	15.17
120	75.9	140.1	0.2500	-6.02	1.000	15.26
150	93.1	122.9	0.2500	-6.02	1.000	14.23
180	78.0	138.0	0.2500	-6.02	1.000	15.13
210	77.1	138.9	0.2500	-6.02	1.000	15.19
240	79.0	137.0	0.2500	-6.02	1.000	15.07
270	79.4	136.6	0.2500	-6.02	1.000	15.04
300	78.3	137.7	0.2500	-6.02	1.000	15.11
330	80.4	135.6	0.2500	-6.02	1.000	14.98
Ave El= 85.83 M HAAT= 130.17 M AMSL= 216 M						