

ENGINEERING REPORT

FM Translator Minor Construction Permit Application

for

K205AX – Hibbing, MN

License No. BLFT-19851010TC

July 2010

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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 K205AX, Hibbing, MN, License No. BLFT-19851010TC. K205AX presently operates on 88.9 MHz with 43 watts of directional power with an antenna COR of 509 meters AMSL. A correction of site coordinates and COR AGL height is requested from the present site location. In addition, a §74.1233(d)(2) waiver Request for the Displacement of a Translator to a Non-Adjacent Channel and expedited Form 349 processing is requested for operation on CH234D with 12 watts ERP at 500 meters AMSL. A new non directional antenna will be proposed. The Translator will rebroadcast primary station KDNW(FM), Duluth, MN (Facility ID No. 49797) as a non fill-in translator.

As stated before, the applicant would like to note the existence of a §74.1233(d)(2) Waiver Request for the Displacement of a Translator to a Non-Adjacent Channel. This instant displacement application is being submitted as a consequence of pending interference from full-power Construction Permit, NEW-204A, Hibbing, MN (BMPED-20100127ABK). The applicant has documented no rule compliant first, second third or I.F. Channel (53 or 54 Channel) minor change frequency exists from the present site location. Documentation has been included in Exhibit 1 of the Form 349. As a result, a waiver of §74.1233(d)(2) for the displacement of this translator to the non-adjacent channel of CH234D is believed merited.

The applicant would also like to note a request for expedited processing of this Form 349 instant proposal and §74.1233(d)(2) Waiver Request for the Displacement of a Translator to a Non-Adjacent Channel. K205AX is presently authorized to remain silent under BLSTA-20091117ACP as a result of noted FM interference. A copy of the February 25, 2010 FCC correspondence (ref: 1800B3-KLJ) authorizing the Silent Authority has been included in Exhibit 1 of the Form 349. The FCC correspondence indicates the K205AX license will expire as a matter of law if broadcast operations do not commence by 12:01 a.m., November 18, 2010. In this instance, expedited process is believed merited both due to the fact K205AX is presently silent and the impending November 18, 2010 deadline imposed by the FCC. The applicant respectfully requested expedited processing for the above mentioned reasons.

The existing water tower does not require Antenna Structure Registration. A copy of USGS topographic mapping of the existing water tower site has been included in **Exhibit 13.1**. A copy of the vertical antenna system has been included in **Exhibit 13.2**. 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 13.5**. 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 outside of the primary contour of KDNW(FM), and the 1 mV/m (60 dBu) contour of the proposed Translator lies outside of the KDNW(FM) station primary contour as well. A map of the proposed service area in relation to the primary station service contour has been included in **Exhibit 13.4**.

Regarding protection of international concerns, the present facility is and will remain within 320 km from the common border between the United States and Canada. Full protection will be afforded all Canadian concerns over Canadian soil as noted in **Exhibit 13.5**.

Discussion (continued)

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 13.3**.

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).

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 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.

N. Lat. = 472609.0 W. Lng. = 925629.0						
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	459.3	40.7	0.0120	-19.21	1.000	3.84
030	456.6	43.4	0.0120	-19.21	1.000	3.97
060	449.9	50.1	0.0120	-19.21	1.000	4.31
090	425.4	74.6	0.0120	-19.21	1.000	5.26
120	413.5	86.5	0.0120	-19.21	1.000	5.67
150	408.4	91.6	0.0120	-19.21	1.000	5.84
180	419.8	80.2	0.0120	-19.21	1.000	5.45
210	448.4	51.6	0.0120	-19.21	1.000	4.38
240	449.2	50.8	0.0120	-19.21	1.000	4.35
270	470.7	29.3	0.0120	-19.21	1.000	3.30
300	453.2	46.8	0.0120	-19.21	1.000	4.15
330	455.7	44.3	0.0120	-19.21	1.000	4.02
Ave El= 442.52 M HAAT= 57.48 M AMSL= 500 M						