

ENGINEERING REPORT

FM Translator Minor Construction Permit Modification Application

for

K260AM – Ames, IA

CP No. BPFT-20090922ADA
(Lic No. BLFT-20070223AHE)

July, 2010

The applicant would like to note this Form 349 minor Construction Permit Modification of BPFT-20090922ADA has been filed at the request of FCC personnel to notify a change in the number of bays for the proposed stock Nicom directional antenna. No other changes are requested here-in.

BPFT-20090922ADA was originally authorized specifying a 1-Bay Nicom BKG77/1L-DA (stock directional pattern). However, at the time of construction, a 2-Bay, fully spaced, Nicom BKG77/2L-DA (identical stock directional pattern) was installed due to Transmitter power output issues. This variance in construction was appropriately noted on the associated BLFT-20100728ABS filing. No other construction variances were noted as all other parameters remained identical to the authorized Construction Permit including antenna height and directional pattern orientation.

However, per FCC request and to maintain compliance with Section 74.1251(b)(2), FCC personnel have recommended the change in number of bays be refilled as a Form 349 Construction Permit Modification as opposed to directly on the Form 350 License Application. Therefore this Form 349 Minor Construction Permit Modification to BPFT-20090922ADA has been filed to noting the change in antenna bays. Pending License Application BLFT-20100728ABS will be amended to reference the new Minor Construction Permit File Number once issued by the Commission.

To assist in processing and for reference purposes, the previously BPFT-20090922ADA engineering exhibits have been re-submitted reflecting the new Nicom 2-Bay fully spaced BKG77/2L-DA antenna.

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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 K260AM, Ames, IA, License No. BLFT-20070223AHE. K260AM presently operates on 99.9 MHz with 3 watts of non-directional power with an antenna COR of 344 meters AMSL. An site change and power increase on the same channel is requested. Operation on CH260D with 250 watts ERP at 584 meters AMSL is requested. The Translator will rebroadcast new primary station KSTZ(FM), Des Moines, IA (Facility ID No. 58541) as a Fill-In Translator.

The existing tower bears Antenna Structure Registration Number 1015278. A copy of the existing ASR 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 with the exception of KDRB(FM), Des Moines, IA. Allocation details are found in **Exhibit 13.5**. A §74.1204(d) waiver request for second adjacent channel given interference towards KDRB(FM) showing a lack of population or housing within the interference area has been included in **Exhibit 13.7**. There is one additional station close enough to merit additional contour protection showings. Contour protection maps and tabulations with KCWN(FM), New Sharon, IA have been included in **Exhibit 13.6**. It is believed sufficient clearance exists precluding the need for additional contour protection showings. The applicant would like to note the use of the NED 03 second terrain database for all HAAT, allocation and contour showings.

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

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.

| N. Lat. = 414801.0 W. Lng. = 933627.0 HAAT and Distance to Contour, FCC, FM 2-10 Mi, 51 pts Method - NED 03 SEC | | | | | | |
|--|-------|-------|--------|-------|-------|-------|
| Azi. | AV EL | HAAT | ERP kW | dBk | Field | 60-F5 |
| 000 | 307.7 | 276.3 | 0.2500 | -6.02 | 1.000 | 21.68 |
| 030 | 285.9 | 298.1 | 0.2130 | -6.72 | 0.923 | 21.64 |
| 060 | 280.7 | 303.3 | 0.1568 | -8.05 | 0.792 | 20.27 |
| 090 | 272.5 | 311.5 | 0.1260 | -9.00 | 0.710 | 19.47 |
| 120 | 297.7 | 286.3 | 0.1236 | -9.08 | 0.703 | 18.55 |
| 150 | 288.8 | 295.2 | 0.1264 | -8.98 | 0.711 | 18.96 |
| 180 | 290.8 | 293.2 | 0.1608 | -7.94 | 0.802 | 20.05 |
| 210 | 281.1 | 302.9 | 0.2271 | -6.44 | 0.953 | 22.15 |
| 240 | 274.3 | 309.7 | 0.2500 | -6.02 | 1.000 | 22.91 |
| 270 | 285.3 | 298.7 | 0.2440 | -6.13 | 0.988 | 22.38 |
| 300 | 304.8 | 279.2 | 0.2411 | -6.18 | 0.982 | 21.60 |
| 330 | 312.2 | 271.8 | 0.2440 | -6.13 | 0.988 | 21.39 |
| Ave El= 290.14 M HAAT= 293.86 M AMSL= 584 | | | | | | |