

Exhibit 12 – ENGINEERING REPORT

Family Life Broadcasting System

Requesting Minor Modification

to W284BQ Translator

BLFT-20111019AEN

Detroit, Michigan

Channel 284D (104.7 MHz.), 0.25 kW ERP

Family Life Broadcasting System (“FLBS”) as the licensee of translator station W284BQ, Channel 230D, Detroit, Michigan¹ proposes herein to make minor changes in the facilities of W284BQ by relocating the transmitter site and increasing the center of radiation height above ground and mean sea level, utilizing a directional antenna. As shown in **Exhibit 10**, the 60 dBu contour of the proposed W284BQ is completely encompassed within the 2.0 mV/m contour of WUFL, as well as within a 25-mile (40 kilometer) radius of the WUFL site. Therefore, this translator is considered a fill-in translator.

The proposed W284BQ antenna system will be located on an existing tower that has been registered with the Commission and assigned Antenna Structure Registration Number 1250497. As such, the Federal Aviation Administration has not been apprised of this proposal.

Exhibit 12.1 is a map showing there is common 60 dBu contour area between the authorized and the proposed W284BQ facility; as such the proposed W284BQ is mutually exclusive with the W284BQ facility for which an application for license was applied.

Exhibit 13.1 is a channel study demonstrating that the proposed W284BQ translator will not cause interference to any full-service station, translator, or LPFM application or station in the United States with the possible exceptions of WOMC and WMGC-FM.

A waiver request of §74.1204(d) is contained in **Exhibit 13.2**, which shows that the WOMC and WMGC-FM Protected Contours are fully protected as the calculated interference area will not reach the ground nor a 7 meter artificial plane representing a two-story building when taking into account the downward radiation characteristics of the transmitting antenna. A copy of the antenna manufacturer’s vertical radiation pattern is included in **Exhibit 13.3**.

Exhibit 13.4 shows the lack of interference contour overlap with the protected contour of WIOT (FM), co-channel with this application.

Exhibit 13.5 shows compliance with Section 4.3 of the Working Arrangement for the Allotment and Assignment of FM Broadcasting Channels Under the Agreement Between

¹ An application for station license pending to cover the outstanding construction permit for W284BQ (BLFT-20111019AEN). Currently the station is silent as authorized under BLESTA-20121116AGQ.

the Government of Canada and the Government of the United States of America Relating to the FM Broadcasting Service as well as §74.1235(d)(3).

Exhibit 17 is a study that shows the proposed W284BQ complies with the Commission's RF exposure guidelines.

All other necessary documentation used to certify the technical portion of FCC Form 349 is available to the Commission upon request.