

This exhibit shows compliance with FCC Rules and Regulations § 74.1204. This rule requires that FM Translators cause no interference to FM Broadcast Stations and Existing FM Translator Stations. This is established by showing that there is no overlap between the service contours of protected stations and the potentially interfering contours of the proposed translator.

## **Interference Analysis**

Co-Channel allocations are shown in Exhibit 13 Figure 1. This map shows the 54 db $\mu$ V F(50,50) contours of CoChannel Class B station WSPK, Poughkeepsie, NY. The proposed 34 db $\mu$ V F(50,10) contour and the 54 db $\mu$ V F(50,50) contours of WSPK do not overlap.

The 60 db $\mu$ V F(50,50) and 40 db $\mu$ V F(50,10) contours of FM translator W284AQ, Hackettstown, NJ are also shown. The proposed 40 db $\mu$ V F(50,10) and the 60 db $\mu$ V F(50,50) of the proposal and W284AQ application do not overlap, as well as the converse.

There is a new LPFM application at Red Bank, NJ (BNPL-20131112ALM) which was filed in the LPFM window, after the instant application was filed for which there was a conflict. This amendment removes the conflict with this pending application. The proposed F(50,10) 40 db $\mu$ V contour does not overlap the LPFM application 60 db $\mu$ V F(50,50) contour, nor vice versa.

Figure 1 also shows first adjacent stations. The F(50,50) 54 db $\mu$ V contour of first Adjacent channel station WRFF, Philadelphia, PA is shown in orange, along with the proposed F(50,10) 48 db $\mu$ V contour, showing no overlap.

Similarly the F(50,50) 57 db $\mu$ V contour of first Adjacent channel station WSJO, Philadelphia, PA is shown in orange, along with the proposed F(50,10) 51 db $\mu$ V contour, showing considerable clearance. There is also considerable distance between the F(50,10) 54 db $\mu$ V contours and the F(50,50) 60 db $\mu$ V of the proposal and various other FM translators shown on the map.

Second and Third Adjacent channel allocations are also shown in Exhibit 13 Figure 2. There

are two third adjacent stations in the vicinity, The translator is located within the protected 54 db $\mu$ V F(50,50) contours of WWPR-FM, New York, NY and of WAXQ, New York, NNY.

In a letter granting Jersey Shore Broadcasting Corporation's application BPFT-950830TD (September 26, 1996 1800B3-JDB) the FCC stated that the Ratio method is suitable for translator applicants to demonstrate lack of interference for application purposes.

The 54 db $\mu$ V F(50,50) contour of both WWPR-FM and WAXQ (dark blue) is shown extending well beyond the proposed facility, the WWPR-FM and WAXQ 60.5 db $\mu$ V F(50,50) contour is shown in light green, extending beyond the W284BW transmitter site. The second and third adjacent channel protection ratio is 40 db, so it is required that the 60.5 db $\mu$ VV contour of WWPR-FM and WAXQ be protected from the proposed 100.5 db $\mu$ V (aqua) contour of the translator.

Since the distance to this contour is below the minimum distances for the F(50,10) and F(50,50) curves the signal level existing on the ground in the vicinity of the translator was calculated using inverse distance, with an adjustment for ground reflections, as has been accepted by the FCC in recent applications. Exhibit 13 Figure 3A is a tabulation and chart of these calculations showing the location above ground at which the proposed W284BW will produce an interfering contour. This table and chart shows that there is no location where this signal reaches within 2 meters of the ground.

Exhibit 13 Figure 3B is a satellite photograph showing the translator tower location, and its surroundings. The area in the vicinity of W284BW contains no multi-story buildings.

**In conclusion, the proposed translator meets all the overlap requirements of § 74.1204 of the FCC rules and regulations.**

## **Fill In Translator**

W284BW proposes to serve as a fill in translator for WQHT, New York and meets the requirements of §74.1235(b). Exhibit 10 is a map showing the service contour of WQHT encompasses the 60 db $\mu$ V contour of W284BW as proposed.

## Engineer's Statement

This is to certify that this report has been prepared by myself. It is correct and accurate of my own knowledge, except where stated otherwise, and where that is so, the information is correct to the best of my knowledge and belief.

I further certify that I am a Licensed Professional Engineer in the State of New Jersey, and the Commonwealth of Pennsylvania with a BSEE degree from the Newark College of Engineering of NJIT, and that I am, and have been for over thirty years, regularly engaged in the practice of radio engineering with the firm of Radiotechniques Engineering, LLC, with offices at 402 Tenth Avenue, Haddon Heights, NJ. I am a member of the AFCCE, Senior member of the IEEE and SBE and hold a FCC General Radiotelephone Operator License. My qualifications are a matter of record with the FCC.



8 November 2014

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Edward A. Schober, PE