

**TECHNICAL EXHIBIT  
APPLICATION FOR MODIFICATION OF LICENSE  
FM TRANSLATOR STATION W292DV  
NEW YORK, NEW YORK  
Technical Statement**

This Technical Exhibit was prepared on behalf of FM translator station W292DV, Long Island City, New York, in support of an application for modification of license. The instant application proposes a change in transmitter location and proposed facilities.

**Fill-In Translator Compliance**

Figure 1 demonstrates that the FM translator's 60 dBu contour does not extend beyond the 60 dBu contour of primary station WVIP(FM) on channel 228A at New Rochelle, New York.

**Minor Change Application**

Processing with a waiver of 74.1233(a)(1) as afforded "Cromwell" in DA 11-1495 is requested. The proposed facilities are mutually exclusive with the existing facilities, as demonstrated by the overlap of the 40 dBu F.1 and the 60 dBu F.5 contours as shown in Figure 2.

**Predicted Coverage Contours**

The predicted coverage contours shown herein were calculated in accordance with Section 73.313 of the FCC Rules. The average terrain elevations from 3 to 16 km from the proposed site were computed using the U.S.G.S. 30-second terrain database. The distances to the predicted coverage contours were determined using the average elevations of radials spaced every

1-degrees of azimuth. The antenna radiation center height above average terrain and the ERP in each radial direction were used in conjunction with the propagation prediction curves of Section 73.333 to determine the distances to the contour.

### **Allocation Considerations**

Figure 3 summarizes the allocation study for the proposed facility. It is noted that the IF related separation requirements are not applicable to the proposal pursuant to Section 74.1204(g) of the FCC Rules as the ERP will be less than 100 Watts. The tabulation at Figure 3 lists the results of a numerical analysis of the potential for contour overlap for all nearby co-channel and first-, second-, and third-adjacent-channel facilities. For the purposes of the numerical study, the maximum HAAT and maximum ERP values were used in determining the maximum distance in any direction to the predicted coverage and interfering contours.

Below as Figure 3 is a spacing study from which it can be determined that this proposal is within the protected contour of station WLTW-FM and is within the protected contour of both the licensed and applied for facilities of WQXR-FM. Section 74.1204(d) states that "The provisions of this section concerning prohibited overlap will not apply where the area of such overlap lies entirely over water. In addition, an application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to intervening terrain, lack of population or such other factors as may be applicable."

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We will demonstrate that a lack of population and/ or other factors allow this proposal to be compliant with 74.1204. The process commonly called “Living Way”, as recently described in FCC 08-242 in connection with BPFT-19981001TA, allows for the use of U/D Analysis, also known as “signal strength ratio methodology” to be utilized. In this instant case the facilities of WLTW and WQXR are 2<sup>nd</sup> adjacent and are to be afforded protection from signals 40 dB stronger.

Figure 4 is a map showing the predicted signal contours of WLTW and WQXR at the proposed transmitter location utilizing the FCC F50:50 curve. WLTW is predicted to present 76.3dBu F50:50 signal at the translator tower location, and WQXR licensed facilities, is predicted to produce 66.6dBu at the translator tower. Figure 4a is an image of the antenna location over which a contour of 106.6dBu, 40 dB greater than WQXR signal of 66.6dBu, has been projected. The projection does not take into account the vertical plane radiation pattern of the translator antenna and can be thought to exist only in the same plane as the radiating antenna. Figure 4b is a plot provided by the antenna manufacturer which was used to develop the table in Figure 5.

Figure 5 depicts the predicted signal strength from the translator both at ground level, and at receiving antenna locations up to 91 meters above ground level of the translator, the 91 meter data is identified in the table as the “artificial plane”, and as can be determined by the columns colored green, at no location from

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ground level to 91 meters above ground does the predicted signal exceed that of 40 dB greater than WQXR.

The proposed facility will not preclude a LPFM facility.

The present facility is located in the same Arbitron market as the proposed facility.

A waiver of Section 74.1204 of the FCC Rules is requested to the extent

### **Environmental Considerations**

The Proposed facilities were evaluated in terms of potential radio frequency radiation exposure at ground level in accordance with OET Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radio frequency Radiation."

In accordance with 47 C.F.R. 1.1307(b)(1) Table 1, only "Part 74 – Subpart L" facilities with an ERP greater than 100 watts, are subject to routine environmental evaluation. Since the facility proposed in this application will operate with an ERP of less than 100 watts, it is "categorically excluded." The licensee will fully cooperate with other site users to temporarily reduce power or cease broadcasting, as necessary, to protect workers and others having access to the site from excessive levels of RF Radiation.