

Radiotechniques

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Exhibit 12 Figure 3
Overlap Study Narrative
BNPFT20030312BEU
August 2003

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 initially established by showing that there is no overlap between the service contours of protected stations and the potentially interfering contours of the proposed translator.

Co Channel and First Adjacent channel allocations are shown in Exhibit 12 Figure 1. This map shows the 54 dbu F(50,50) contour of Cochannel Class B stations WHUD, Peekskill, NY, WLEV, Allentown, PA and the 34 dbu F(50,10) contour of the proposed translator station. There is no overlap of the proposed nuisance contour and the service contour of These stations. It also shows the proposed co-channel FM translators BNPFT-2003031BGK, BNPFT-20030317FKM and BNPFT-20030313BOK protected and interfering contours and demonstrates that there is no prohibited overlap of this proposal and any of these.

This map also shows the first adjacent channel proposed translators BNPFT-20030311AAE, BNPFT-20030317LVL and BNPFT-20030310AMR, showing that there is no prohibited overlap of the proposed contours with any of these.

Second and Third Adjacent channel allocations are shown in Exhibit 12 Figure 2. The only stations in consideration are third adjacent channel stations WCBS-FM, New York, NY and WHTZ, Newark, NJ. The translator is located within the protected 57 db μ V F(50,50) contour of WCBS-FM and WHTZ. 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.

There are several licensed facilities for WHTZ and WCBS-FM. The various 54 dbu F(50,50) contours of these facilities are shown extending well beyond the proposed facility. The 60.5 dbu contour of the weakest auxiliary facility for WHTZ and WCBS were plotted on Figure 2. This 60.5 dbu F(50,50) contour extends beyond the proposed translator location for both stations.. The third adjacent channel protection ratio is 40 db, so it is required that the 60.5 dbu contour is protected from the proposed 100.5 dbu contour of the translator.

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Since the distance to the 100.5 dbu 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 12 Table 1 is a tabulation of these calculations showing that at no point on the ground will the translator produce a 107 dbu contour, thereby protecting WCBS-FM and WHTZ by the ratio method. The proposed antenna consists of multiple elements, and the vertical pattern is different in different directions. Two bays are used for signals between 105 and 195 degrees Azimuth and a single bay is used at 327 degrees. Calculations are shown in Exhibit 12 Table 1 for each of these situations, showing that the maximum signal on the ground remains below the 100.5 dbu level in all directions from the antenna.

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