

Clearance to WWLV (License) and WWLV (CP)

This instant translator application clears all allocation constraints of Section 74.1204. On first glance, it appears that interference is created to second-adjacent stations WWLV (FM) (License) and WWLV (FM) (CP), Lexington, NC. However, Section 74.1204(d) instructs us:

“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.”

WWLV (FM) (License) places 71.8 dBu over the proposed translator site. Adding the 40 dBu U/D ratio to the 71.8 dBu signal produces an interfering contour of 111.8 dBu. This interfering contour extends a distance of 285 meters in the main lobe of the signal. The antenna that is being proposed is a 2-bay 0.85 wave spaced Nicom BKG77 antenna with a center of radiation of 64.6 meters above ground. This antenna significantly focuses the 111.8 dBu interfering contour over the heads of any nearby resident. Please see the drawing that follows. The 111.8 dBu interfering contour touches the ground between 24.0 meters and 61.6 meters from the tower base, which is on the property of WRNA (AM). The point at 61.6 meters from the tower is generated by the 50 degree azimuth of the antenna. The interfering contour does not touch the ground anywhere outside the WRNA (AM) property. Therefore, the interfering contour cannot be received by any listener.

WWLV (FM) (CP) places 72.9 dBu over the proposed translator site. Adding the 40 dBu U/D ratio to the 72.9 dBu signal produces an interfering contour of 112.9 dBu. The interfering contour extends a distance of 250.1 meters from the antenna. This contour is smaller than the WWLV (FM) (CP) contour described above. Therefore, if WWLV (FM) (License) clears all population, the smaller WNKS (FM) (CP) contour will clear also.

In conclusion, based on the foregoing explanation showing that no persons will receive interference, it is thought this application is in compliance with Section 74.1204 using Section 74.1204(d).

111.8 dBu Interference Nicom 2-Bay 0.85 Wave Spaced BKG77

