

BEACON BROADCASTING CORPORATION

ALLENTOWN, PENNSYLVANIA

FCC AUCTION #83 SINGLETON LONG FORM APPLICATION

CHANNEL 257 NEW TRIPOLI, PENNSYLVANIA

ORIGINAL FCC FILE # BNPFT-20030304BVH

EXHIBIT 12

The instant application provides full protection to all licensed facilities and proposals as well as to other nearby applicants of Auction 83.

An engineering study by this office revealed that the following stations required further study.

WODE-FM Channel 260B, Easton, PA.

W257AI, Channel 257, Allentown, PA.

The slight change in transmitting antenna location reduced the potential of prohibited overlap with W257AI. The revised facilities herein completely protect these and all other facilities from prohibited overlap as required by 47 CFR 74.1204 with the exception of WODE-FM.

A copy of the study results is attached hereto as Exhibit 12, Figure 1.

PROTECTION OF WODE-FM

This instant proposal on channel 257 is three channels removed from WODE-FM and the proposed transmitting facilities are located within the WODE-FM 54 dBu protected contour. Figure 2 attached hereto shows a plot of the relevant WODE-FM F(50,50) contours plotted along with the BNPFT-20030304BVH transmitter site. This instant proposal is located such that the WODE-FM 62.5 dBu F(50,50) contour bisects the proposal site. For third adjacent protection, the required U/D ratio is -40 dB. To provide the required protection to WODE-FM, the instant proposal transmitter site, we have reduced the ERP originally proposed, selected a Shively 6812-2-SS transmitting antenna with reduced downward radiation, and have located the transmitter site such that the distance from the tower to any and all occupied structures is at least 305 meters. This was accomplished by locating the tower in a large field near a church and future cemetery. This combination results in the predicted signal level from this instant

proposal to always be less than the 102.5 dBu required to result in actual predicted interference to WODE-FM.

Table 1 attached hereto is a spread sheet which provides a series of calculations at various distances from the proposed tower to show the expected signal levels from this instant proposal in the vicinity of the transmitter site. The calculations include an additional 2.5 dB to allow for possible ground reflection. The signal from this proposal peaks at 111.38 dBu at a distance of 60.62 meters from the tower and falls below 102.5 dBu at approximately 305 meters from the tower. This corresponds to the elevation depression angle of approximately 6.5 degrees highlighted in Exhibit 12, Table 1.

Therefore, we believe that the instant proposal will fully protect WODE-FM. In the event actual interference to WODE-FM does occur, Beacon Broadcasting will take all steps necessary to correct said interference.