

SECTION 1204(d) STUDY

This narrative exhibit demonstrates that the predicted interference to the 54 dBu contour of the second-adjacent WBYN-FM, Boyertown, PA is allowable under the rules stated in 47 CFR 74.1204(d). In support of this application, Applicant states the following:

1. WBYN-FM, Boyertown, PA, a second adjacent channel facility to this translator proposal, is protected from interference within its 54 dBu contour from the associated interference contour (based on 47 CFR 74.1204(a)(1); using the FCC F(50/10) curves) which need be 40 dBu greater than the associated coverage contour (WBYN-FM) that would encompass the proposed translator antenna site and that contour which is 40 dBu greater than the associated coverage contour.
2. This translator's antenna location is located within the 54 dBu contour (based on 73.333 F(50/50)) of WBYN-FM, Boyertown, PA. This proposal will use the predicted desired to undesired coverage method to determine the appropriate interference contour that need be used with regard to WBYN-FM. Included as an attachment (WVIA Reading 107.1 Desired to Undesired Ratios Map) is a map showing that the 78 dBu coverage contour of WBYN-FM encompasses the proposed antenna site along with the entire proposed 118 dBu interference contour. As the proposed 118 dBu interference contour is 40 dBu greater than the 78 dBu contour of WBYN-FM then this contour is the appropriate interference contour for this analysis and it is clearly evident that interference will only occur within this 118 dBu interference contour of this proposed translator.
3. Given this translator's requested effective radiated power of 99 watts, directional; the predicted 118 dBu interference contour for this proposal would be small. This proposal's 118 dBu contour, at any HAAT

value, is 0.09 kilometers (90 meters) towards 300 degrees, and less than this in all other directions.

4. This proposed translator antenna is to be situated 34.5 meters above ground on a 47 meter tall radio tower. Enclosed as WVIA Reading 107.1 Vertical Freespace CL-FMRX, is a study showing the free space signal distance based on the Freespace Equation and factoring in the Vertical Pattern (downward radiation) of the proposed CL-FMRX Antenna. Based on this study, no part of the 118 dBu contour ever reaches the ground level. As such, no interference would be caused at any location on the ground. The rule in 47 CFR 74.1204(d) states "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 factors as may be applicable." In this particular case, as shown in this exhibit, it is clearly evident that there is a "lack of population" as defined in 47 CFR 1204(d) thus allowing this translator to operate at this proposed location.

For the foregoing reasons Applicant submits that the predicted interference to WBYN-FM, Boyertown, PA is allowable under Section 74.1204(d) of the Commission's rules. Furthermore, grant of this application is in the public interest as it would increase the coverage area of a radio facility in this area and impose no hardship to the referenced facility, WBYN-FM, Boyertown, PA.

By: Kevin Fitzgerald, Technical Consultant