

TECHNICAL STATEMENT  
K295CB DES MOINES, IOWA 231D  
YOUNGERS COLORADO BROADCASTING LLC  
FCC FORM 349  
JANUARY 2021

This Technical Statement is in support of a minor change application, FCC form 349, being filed on behalf of Youngers Colorado Broadcasting LLC in regards to K295CB Des Moines, Iowa, facility ID 144879. To resolve any potential interference problems of the current K295CB with the new construction permit of KNWI Osceola, Iowa on first adjacent channel 296C1 which predicts an interference overlap of 26.7 km, Youngers Colorado Broadcasting LLC is proposing to change channels from 295 to 231. The Effective Radiated Power will remain at 132 Watts and will continue to use a directional Nicom BKG77 with a Center of Radiation at 395 meters Above Mean Sea Level and 112 meters Above Ground Level.

Figure 1 shows a channel interference study conducted from the site for K295CB. The only pertinent records for further study are:

1. K229CC Des Moines, Iowa 229D License
2. K233BT Des Moines, Iowa 233D License

The proposed site is located within the protected 60 dB $\mu$  contours of second adjacent translators K229CC Des Moines, Iowa on channel 229D and K233BT Des Moines, Iowa on channel 233D. The predicted F(50-50) field strength of K229CC at the proposed transmitter site is 74.7 dB $\mu$  and the predicted F(50-50) field strength of K233BT at the proposed transmitter site is 72.1 dB $\mu$ . Therefore, the predicted interfering signal contours F(50-10) generated by the proposed facility to K229CC and K233BT are an additional 40 dB $\mu$  or 114.7 dB $\mu$  and 112.1 dB $\mu$ , respectively. The maximum distance to the 112.1 dB $\mu$  interference contour, the farthest of the two, is about 200 meters from the transmitter. Figure 2 is an aerial view of the tower site with a circle of 200 meters from the

tower in red.

Figure 3 is a table for an ERP of 132 Watts showing the vertical clearance of the interfering contour based on the antenna relative field for various depression angles below horizontal for the antenna. The minimum vertical clearance is 23.2 meters, over 76 feet. All of the buildings within 200 meters distance from the transmitting antenna are only at most 2 or 3 stories. Therefore, the 2<sup>nd</sup> adjacent interference zone does not reach any population and, therefore, this proposal is in compliance of C.F.R. 74.1204(d) of the Commission's rules.

Figure 4 shows the overlap between the 60 dBμ contours of the proposed facility, in red, and the current licensed facility, in blue, seeking to be modified by this application.

The proposed operation will operate as a fill-in translator for WXLQ(AM), 1490 kHz, in Indianola, Iowa, facility ID 70891. Figure 5 shows that the 60 dBμ contour of the proposed operation is entirely within 25 miles, 40.23 km, of the WXLQ(AM) site.

It was concluded that the proposed operation of K295CB Des Moines, Iowa on 231D will not cause any harmful interference to any existing stations and will be in full compliance with the Commission's rules. Let it be noted that should any actual real world interference occur, the applicant acknowledges that it will promptly suspend operation of this translator in accordance with 47 C.F.R. § 74.1203.