

Engineering Exhibit 10

Section III-5 in support of license application for FM translator

K286CI 144718 Waverly, Iowa - Fife Communications

Construction Permit BPFT20141212ABC granted to Fife Communications for an FM translator station co-located on the KCNZ AM radiator has been fulfilled. The purpose of this exhibit is to verify the effect of installing the FM antenna on the AM radiator had on the operation of the AM station.

KCNZ, facility ID 87158, BL20001026ABQ operates on 1650 kHz using a folded unipole antenna operating on a grounded tower. In addition to the AM station, there is a 3 bay FM antenna on the tower top for KCVN, licensed to Hudson, Iowa.

Immediately above the unipole is a grid antenna used for the 950 MHz. studio to transmitter link. Since the tower is grounded, no isolation is used on these two antennas and the coaxial cables are bonded to the tower at ground level. The new antenna for K286CI was mounted below the KCVN antenna and well above the top of the unipole. The coaxial cable was routed through the center of the tower and bonded to the tower in 4 locations including the bottom. The coaxial cable was then routed into the building with the 2 existing cables. After completion of the installation, a sweep was done of the base impedance of the AM antenna at the output of the antenna tuning unit. The measurements were made using a General Radio 1606 bridge which was calibrated with a precision resistor. No change in base resistance was noted, as it remained at 50 ohms as specified in the previous measurement and the KCNZ license. A small change of 2-3 ohms was noted in the reactance. This could be due to the antenna but it is more likely caused by changes in ground conductivity from frost, vegetation or measurement error.

No adjustments were made or were necessitated to the antenna tuning unit as all transmitter parameters remained exactly the same as previous to the translator antenna installation. As there was no change more than 2 percent from the licensed value, no additional filing will be made.

Ronald E. Schacht

Radiotelephone General Class

1/26/2014