KLEIN BROADCAST ENGINEERING, L.L.C.

dedicated to improving the science and technology of radio & television communications

ENGINEERING STATEMENT

AMENDMENT / MODIFICATION
of
FCC FORM 349 APPLICATIONS
for
MINOR CHANGES
KQBA-FM1 FCC File# BPFTB-20040614ABP
&
KBOM-FM1 FCC File# BPFTB-20040614ABM

INTRODUCTION and ENGINEERING STATEMENT

In the above captioned applications for a minor change to FM Booster Station KQBA-FM1 and KBOM-FM1, the applicant was informed by Commission staff there may be a possible interference problem to existing FM Booster Station KLBU-FM1 (BLFTB-20030224AAG) because of the proximity of the KLBU-FM1 antenna and the proposed location of the common KQBA-FM1/KBOM-FM1 antenna placement on the common antenna support structure.

Commission staff asked for a letter from the antenna manufacturer of the KLBU-FM1 antenna to state there would be no interference of patter distortion to the KLBU-FM1 radiated pattern as a result of the proposed placement of the KQBA-FM1/KBOM-FM1 common antenna array. The KLBU-FM1 antenna is a Scala CLFM antenna, vertically polarized, the same type and manufacture as proposed by KQBA-FM1/KBOM-FM1. The KLBU-FM1 antenna has a licensed radiation center of 26 meters AGL. The proposed radiation center for the KQBA-FM1/KBOM-FM1 common antenna array in the instant application captioned above was proposed at 29 meters AGL.

Upon speaking with Scala Antenna Engineer, Michael Bach, it was decided to move the proposed radiation center of the new KQBA-FM1/KBOM-FM1 antenna array to 32 meters AGL in order to avoid any possible interference or pattern distortion to the KLBU-FM1 existing licensed facility.

This modification requests the radiation center of the proposed KQBA-FM1/KBOM-FM1 antenna array be placed at 32 meters AGL on the proposed antenna structure. This is the only amendment/modification requested. All other engineering data filed in the above captioned applications remains unchanged and valid.

Exhibit E-1 of this amendment/modification is a Vertical Plan Sketch showing the proposed placement of the antennas for KQBA-FM1/KBOM-FM1 as related to the existing placement of the licensed KLBU-FM1 antenna. This exhibit was sent to Michael Bach at Scala and resulted in the letter statement (Exhibit E-2) of no interference or pattern distortion to the KLBU-FM1 licensed facility if the proposed KQBA-FM1/KBOM-FM1 antenna radiation center were moved to 32 meters AGL as requested herein.

It has also been this writer's experience on many occasions at the test range at ERI that maintaining a distance of one wavelength or more vertical separation between commonly mounted antennas on the same structure results in no interference or pattern distortion as long as a distance of one wave length distance is maintained. In this case one wavelength is approximately 3 meters.

At the proposed 32 meter AGL for the KQBA-FM1/KBOM-FM1 antenna radiation center there exists 4 meters of vertical clearance between the lowest element of the proposed KQBA-FM1/KBOM-FM1 antenna array and the licensed facility of KLBU-FM1, considerably more than the minimum vertically required spacing for no interference or pattern distortion to occur to the KLBU-FM1 licensed facility from the proposed KQBA-FM1/KBOM-FM1 facility.

Therefore, with the proposed increase to 32 meters AGL for the radiation center for the KQBA-FM1/KBOM-FM1 antenna array taken into consideration there will be no interference to KLBU-FM1.

Respectfully submitted,

Elliott Kurt Klein,
Consulting Broadcast Engineer

08 November 2004