

ENGINEERING STATEMENT

FCC 301 application for Modification to CP for Aux antenna
BXPB-20130710AAX
KXTE(FM) fac. Id. 2100
April 17, 2014

REASON FOR MODIFICATION OF CONSTRUCTION PERMIT

This application for Modification of Construction Permit is being filed as a result of the necessity to move the proposed tower due to a re-design of the antenna array for CBS owned station KXST(AM). The result is a change of 5.2" latitude and 4.4" longitude and correction of +6 meters in ground elevation. The new HAAT center of radiation is calculated to be -18m. A new contour exhibit is being provided to reflect the resulting geographical changes, new ASR number, and 2 meter increase in HAAT. No other changes are being proposed. "CBS" will comply with all terms and conditions placed on the underlying Construction Permit.

SPURIOUS EMISSIONS

CBS Radio Stations Inc., the licensee of KXTE (FM) seeks to share an auxiliary facility utilizing a combining system designed to facilitate auxiliary facilities for co-owned stations KLUC-FM, KMXB, and KXNT-FM.¹ The underlying application proposes to share the auxiliary antenna for all 4 of the CBS owned FM stations. Since it is possible that multiple stations might need to utilize the auxiliary antenna simultaneously, CBS will provide a report of measurements, filed with the application for license, showing that the shared system meets or exceeds the spurious and harmonic emission requirements specified in the Commission's rules.

ENVIRONMENTAL

An Environmental Assessment is not required as grant of this application would not be considered a major environmental action.

The transmitting antenna will be mounted on a tower that has been registered with the Commission (**ASR 1291307**). The antenna, an ERI, model SHPX-8C6 8 bay with 1 wavelength spaced elements, will be installed with the center of radiation 80 meters above ground. The total combined ERP with all 4 of the stations operating into the antenna is 205.5 kW (H+V).

The proposed transmitting facilities will comply with the FCC guidelines limiting human exposure to radio frequency energy. The vertical pattern is typical of a standard ERI SHPX rototiller type antenna. A worst case field factor of .3 at an elevation angle of -75° was considered, based on the manufacturer's theoretical specifications. The maximum power density level at any location at ground level, calculated in accordance with OET Bulletin No. 65 (August 1997), is determined to be 48% of the most restrictive applicable limit (Un-controlled General Population). If work is done on the tower in an area where over exposure could occur, the Licensee in coordination with the other users will take necessary action to prevent the overexposure of workers on the tower including reducing the transmitting power or ceasing operation completely.

¹ Applications to modify Construction Permits for auxiliary facilities for KXNT-FM, KLUC-FM, and KMXB utilizing the shared antenna are being filed concurrently with this application for KXTE.