

**Human Exposure to Radiofrequency Electromagnetic Field
&
Section 106 Compliance
(Environmental)**

A study has been made to determine whether this proposal is in compliance with 47 C.F.R. 1.1307 of the Commission's rules and with OET Bulletin #65, dated August 1997, regarding human exposure to radio frequency radiation in the vicinity of broadcast towers. Zimmer Radio of Mid-Missouri, Inc. seeks to a new FM translator at Columbia, Missouri. The proposed new FM translator would be used as a fill-in translator for co-owned AM station KFAL, 900 Khz, Facility ID No. 34409, operating on Channel 237D (95.3 MHz) with an effective radiated power of 250 watts non-directional. The transmit tower is 139.6 meters (457.9 ft.) in overall height, is located at 38° 57' 19" North, 92° 16' 20" West (NAD 27) and is associated with Antenna Registration Structure system "ASR" number 1006896. The proposed transmit antenna is a side mounted Bext Model TFC2K 4 bay 0.85 wavelength broadband circularly polarized antenna with a center of radiation of 115 meters AGL. K242CT will operate with 250 watts ERP at 113 meters HAAT. This antenna is also the transmit antenna for full power FM station KDVC, Channel 252C3 Facility ID No. 198800, Columbia, MO with an effective radiated power of 9.5 kW, K242CT (96.3 MHz) Facility ID# 154581, Columbia, MO, K276DI, Channel 276D (103.1 MHz) Facility ID# 37470, Columbia, MO and FM translator K286CL, (105.1 MHz) Facility ID # 140770, Columbia. K276CI, K242CT and K286CL all operate with 250 watts ERP at 113 meters HAAT.

The proposed new FM translator was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. The Bext antenna is included in the recently revised OET FM Model Program under Type 2, Opposed "V" dipole. Using the Type 2 antenna selection in the FM Model for Windows the predicted power density for Channel 237D near the tower at two meters above ground level attributable to the proposed facility is $0.0264 \mu\text{W}/\text{cm}^2$ at 16.8 meters, which is 0.0132 percent of the general population/uncontrolled maximum permitted exposure limit. This is well below the five percent threshold limit described in 1.1307(b) regarding sites with multiple emitters, which excludes applicant from responsibility for taking any corrective action in areas where the proposal's contribution is less than five percent.

The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission during times of maintenance or inspection.