

Engineering Exhibit

KZKX-FM, Seward, NE (FID 53143)

RF Radiation Compliance

Although KZKX is not eligible to use the “RF Exposure Worksheet”, the facility does comply with the FCC established guidelines regarding exposure to RF electromagnetic fields as described in OET Bulletin 65. The alternate method for showing compliance is described below.

Facilities:

KZKX is licensed for 100 KW Horizontal ERP and 100 KW Vertical ERP and utilizes a 10 bay, full wave spaced ERI antenna. The Antenna is mounted on a Guyed tower with a Radiation Center above ground level of 149 meters.

General Population/Uncontrolled Exposure:

To determine the power density contributed by KZKX, the FCC’s “FM Model” software was used to predict the power density at 2 meters above the ground. To provide a “worst-case scenario”, the antenna radiation center was set to 149 meters, ERP for both horizontal and vertical polarization was at 100,000 Watts (200,000 total), and the antenna type was set to ERI or Jampro JBCP “rototiller” (EPA) with 10 elements and full-wave spacing. The maximum predicted power density was determined to occur at a distance of 36 meters from the base of the tower and does not exceed $15.9\mu\text{W}/\text{cm}^2$, or less than 8 % of the limit of $200\mu\text{W}/\text{cm}^2$ for General Population/Uncontrolled exposure for FM stations. Therefore, this facility DOES comply with OET Bulletin 65 with regards to General Population / Uncontrolled Exposure.

Occupational/Controlled Exposure:

Because KZKX does not exceed the General Population/Uncontrolled Exposure, it also complies with OET Bulletin 65 with regard to Occupational / Controlled Exposure.

Allan Brace
RVP, Engineering
Clear Channel Radio