

Environmental Considerations
Prepared for
KRQE-DT Albuquerque, NM
Facility ID 48575
Ch. 16 75kW 1268 m
Construction Permit BPCDT-20020319AAC

Human Exposure to Radio frequency Radiation

The FCC granted a construction permit to Emmis Television License Corporation April 12, 2002 to construct KRQE-DT in Albuquerque, New Mexico. The construction permit proposed a transmitting antenna, Dielectric model TFU-16DSB-A(C) with 1.5 degrees of electrical beam tilt and 1 degree of mechanical beam tilt. The 1-degree of mechanical beam tilt is oriented at 235 degrees True North. The maximum ERP will be 75 kW, horizontally polarized.

Calculations were made per OET 65 to predict power density attributable to the proposed facility at two meters above ground level. Considering the elevation pattern of the proposed antenna system, RF density levels attributable to the proposed facility will be less than five percent of the “controlled/occupational” Maximum Permissible Exposure (MPE) limit at all ground level.

The calculations showed that some locations (two meters above ground level) would be subject to RF density attributable to the proposed facility of up to 17.3 percent of the “general population/uncontrolled” MPE limit. Emmis does participate in an RF exposure safety program, along with other broadcasters and FCC licensees that utilize the Sandia Crest site antenna farm. These existing users have previously commissioned RF measurements, which have reported that the publicly accessible locations do not exceed the “uncontrolled/general public” MPE limit.

Emmis conducted additional measurements in the publicly- accessible areas following the construction of the proposed facility.

Measurement Procedure

On May 30, 2002, measurements were performed with a Narda Safety Test Solutions Model EMR-300EM Radiation Meter SN/AN-0040, that was last calibrated on March 14, 2002 and a Narda Safety Test Solutions Model TYP-25 E-Field FCC occup. 40GHz probe SN/E-0002, last calibrated on February 7, 2002. The Model TYP-25 probe measures the power density as a percentage of the limit value of FCC 96-326, Aug. 1996 controlled/occupational standard. Measurements were taken with the facility operating at 75kW (full power) and all measurements were adjusted by 5 times for the “general population/uncontrolled” MPE limit.

Twenty separate readings were taken in the public access parking lot, the sidewalk and in front of the gift shop. These reading were taken using an averaging time of six minutes with meter set at 2 meters above ground level. The MPE limit was not

reached at any of these sites. The highest reading was 350 feet from the KRQE-DT's tower, half way up the sidewalk to the observation deck. At this site the reading was 50% under the "uncontrolled/general public" MPE limit or 10% under the "occupational/controlled" MPE limit. With KRQE-DT transmitter off there was a less than 5 % reduction. KRQE-DT is not a major contributor to the RF levels at this site.

Measurements were also taken using the MAX setting on the meter. This setting displays the highest instantaneous value. A complete "walk through" of the public access area of the Sandia Electronic site was conducted. The meter was held at the 2-meter level and at no point was the power density percentage higher than the uncontrolled/general public MPE limit value. Again the highest reading was on the sidewalk leading to the observation deck. At this site the reading was 74.05% under the "uncontrolled/general public" MPE limit or 14.81% under the "occupational/controlled" MPE limit.

With respect to the safety of the general public (uncontrolled/general public) and worker safety (occupational/controlled), it is believed that based on the preceding analysis and RF exposure readings taken at the Sandia Crest Electronic Site, excessive levels of RF energy will not be caused at publicly accessible areas at ground level. Consequently, members of the general public will not be exposed to RF levels in excess of the Commission's guidelines. Tower access will continue to be restricted and controlled through the use of a locked fence. Additionally, appropriate RF exposure warning signs will continue to be posted.