

RF FIELD DENSITY REPORT TRANSLATOR STATION K241AO

FCC License File Number: BLFT-20111101AKL

The Construction Permit and authorization BPFT-20110622ABH for translator station K241AO, Cortez Colorado, contains a condition that requires RF density measurements to demonstrate compliance with the Commission's Radio Frequency Exposure requirements as set forth in the current FCC/OAT Bulletin 65.

The stations installed antenna is BEXT TFC2K consisting of 2 elements configured for 0.50 wavelength spacing between sections and electrical beam tilt of 0.0 degrees. The radiating element sections of the BEXT antenna use the same configuration as the traditional "Jampro" double-V design, and therefore that type of antenna was used for the field elevation and calculations. The antenna elements are mounted on a 10 meter Rohn 34G self supporting tower center of radiation at approximately 3 meters AGL.

RF measurements were made December 17, 2011 using a NARDA Model 8520 Radio Frequency Radiation Meter, Serial 06030. The Radiation meter is calibrated to read directly in milliwatts per square centimeter.

The subject K241AO translator site is a stand alone facility, there are no other RF transmitting devices within the tower area. When the translator was powered down the measurement device indicated zero RF fields present or were at levels below the threshold of detection using the Radio Frequency Radiation Meter.

For the measurements, the K241AO transmitter was operated at a power resulting in maximum ERP of 0.034kw as authorized. Measurements were made facing the antenna, and at each measurement location the detector probe was moved between ground level and two meters above ground level, with the highest level in that elevation range being recorded. RF levels were in in all 6 radials at a distance of up to 50 feet.

The measurements demonstrated compliance with the FCC radio frequency electromagnetic field exposure guidelines based on the the usage of the current antenna and its installation. In all directions and distances RF levels were below the 0.2mw/cm² level as currently required for casual exposure to humans. There were not any areas that exceed the FCC guidelines for human exposure to RF fields.

K241AO RF Field Density Measurements
Saturday December 17, 2011

The total field density readings represent the highest measured RF level on any of the 6 equally spaced radials. The 6 radials approximately 60 degrees apart starting at 0 degrees North and cover 360 degrees, filtered here to indicate maximum measurement on any of the six radials and presented in this format for efficiency.

Dist from tower		Maximum Field Density Measurement readings on any radial
Feet	CM	Total Field Density, mw/cm ² D
5	152.4	0.003514
10	304.8	0.006964
15	457.2	0.017472
20	609.6	0.025342
25	762 2.	0.012642
30	914.4	0.011525

35+ Below last tabulated measurement of 30 ft.

To the best of our knowledge and ability, the above titled translator installation meets current FCC requirements as set forth in FCC/OET Bulletin 65 and the transmitter area was measured under the limits set forth for the general population and uncontrolled exposure, at 0.2 mw/cm² at 96.1MHz.

Bill Boyes
Electronic Technician