

# Engineering Exhibit

KEYU-FM (CP) Facility ID 39892

KXLV-FM Facility ID 39889

K16HB-D Facility ID 167486

K51JN-D Facility ID 167484

## Site Location

**35-15-41.2 N 101-52-53.7 W (NAD 83)**

January 9<sup>th</sup> 2018

## RF Radiation Compliance Study

Although KEYU-FM (CP), KXLV-FM (Main), K16HB-D (Main) and K51JN-D (Main) are not eligible to use the "RF Exposure Worksheet", the facilities do comply with the FCC established guidelines regarding exposure to RF electromagnetic fields as described in OET Bulletin 65 Edition 97-01. The alternate method for showing compliance is described below.

### Facilities:

**KEYU-FM (CP)** Effective Radiated Power: 100 KW, Antenna Center HAG: 79 meters, Antenna Make and Model: Shivley 6810-8R-CF-PS

**KXLV-FM (Main)** Effective Radiated Power: 27.50 KW, Antenna Center HAG: 108 meters, Antenna Make and Model: Jampro JMPC-6

**K16HB-D (Main)** Effective Radiated Power: 0.5 KW, Antenna Center of Radiation HAG: 130 meters, Antenna Make and Model: Scala 4DR-16-2HW Standard Pattern "Y"

**K51JN-D (Main)** Effective Radiated Power: 0.07 KW, Antenna Center of Radiation HAG: 130.4 meters, Antenna Make and Model: Scala 4DR-16-2HW Standard Pattern "Y"

These stations are all mounted on a guyed tower with an overall height of 135.3 meters HAAG. (ASR 1044767) It was also noted that a second guyed tower is located approximately 100 meters away (35-15-40.2 N 101-52-53.7 W) (NAD 83). The second guyed tower contains KEYU-FM (Main) and KEYU-FM Auxiliary facilities. It is to be noted that neither of these facilities were taken into account for this study. At the commencement of Program Test Authority for KEYU-FM (CP) these facilities will be no longer operational and will be physically removed and the guyed tower will be dismantled.

January 9, 2018

## **General Population Uncontrolled Exposure:**

To determine the level of RF exposure, measurements were made on January 4<sup>th</sup> 2018 in all areas at the transmitter site and surrounding areas, whether or not they are accessible to the general public. A Narda Broadband Field Meter was used. Model number NBM-520, Serial Number D-1714. The current Factory Calibration Certificate dated October 4<sup>th</sup> 2017. The probe is calibrated in percent of limit for occupational/Controlled Exposure for frequencies ranging from 300 kHz to 3.0 GHz.

**The "Max Hold" setting was used to record the highest levels measured.**

Measurements were made at 2 meters above the ground while walking the entire area at the site and in the adjacent areas out to a distance of 300 meters from the tower base on eight (8) radials evenly spaced. All facilities listed above and including KEYU-FM (Main) and KEYU-FM (Auxiliary) were turned off. A base line reference was recorded of <1.0 percent.

All stations were returned to normal operation at full licensed effective radiated power levels. A duplicate set of measurement was performed, but with KEYU-FM (Main) and the KEYU-FM (Auxiliary) remaining off.

With the stations radiating at full authorized power the highest maximum level detected was less than <8 percent (7.866% actual). Exception of four of the towers guy anchor points. (ASR 1044767) These anchors are the two located to south east of the structure and the two anchor points located to the north east. These individual points have now been fenced including warning signs as of the writing of this exhibit, since they each exceeded the 20 percent limit for the General Population/Uncontrolled Exposure. The west anchor points did not exceed the maximum limits.

This is well below the 20% limit for General Population/Uncontrolled Exposure. The gates to the fences surrounding the tower, and building property are securely locked and RF radiation warning signs are conspicuously posted. Therefore, KEYU-FM (CP) Facility ID 39892, KXLV-FM Facility ID 39889, K16HB-D Facility ID 167486, K51JN-D Facility ID 167484 **does comply** with OET Bulletin 65 Edition 97-01 with regard to General Population/Uncontrolled Exposure.

Page III.

January 9, 2014

My qualifications in performing this study are a matter of record before the Federal Communications Commission. I hereby certify that all statements and measurement are true and correct to the best of my knowledge.

A handwritten signature in black ink, appearing to read "Steven P. Hasskamp", is written over a horizontal line.

January 9, 2018

Steven P. Hasskamp, Senior RF Engineer

Rock Tex Technologies, LLC

102 North Utica Avenue

Lubbock, Texas 79416

806-319-3333 Direct