

ENVIRONMENTAL STUDY

KTVT BROADCASTING COMPANY, L.P.
STATION KEYE-DT AUSTIN, TEXAS
CH 43 1,000 KW (MAX-DA, BT) 395 METERS

KTVT Broadcasting Company, L.P. (hereinafter KTVT) proposes to operate the television facilities of KEYE-DT, channel 43 (644 to 650 megahertz (MHz)), Austin, Texas, at a transmitter site located at geographic coordinates 30° 19' 18.6" North Latitude, 97° 48' 11.6" West Longitude (referenced to 1927 North American Datum), using a horizontally polarized directional antenna, 1,000 kilowatts (kW) maximum average effective radiated power (ERP), and 395 meters antenna radiation center height above average terrain. The proposed KEYE-DT antenna radiation center is 361 meters above ground level (AGL).

An analysis has been made of human exposure to radiofrequency radiation (RFR) using the calculation methodology described in *OET Bulletin 65, Edition 97-01*, prepared by the FCC Office of Engineering and Technology. A conservative vertical plane relative field factor of 0.066, obtained from the manufacturer's theoretical vertical plane radiation pattern for the proposed KEYE-DT, Dielectric Communications, type TFU-26GTH-R O6SP, transmitting antenna, was used in the calculation of power density. The proposed KEYE-DT

maximum peak visual ERP of 1,000 kW was used in the calculation of power density. To account for ground reflections, a coefficient of 1.6 was included in the calculations. The power density calculations reported herein were made at 644 MHz, the lower edge of KEYE-DT channel 43.

The FCC maximum permissible exposure (MPE) limit for general population/uncontrolled exposure is 0.43 milliwatt-per-square-centimeter (mW/cm²) at 644 MHz. The FCC MPE limit for occupational/controlled exposure is 2.1 mW/cm² at 644 MHz. At a reference point two meters AGL at the base of the KEYE-DT antenna supporting structure, the calculated KEYE-DT power density is 0.00113 mW/cm², which is 0.26 percent of the FCC MPE limit for general population/uncontrolled exposure, and 0.054 percent of the FCC MPE limit for occupational/controlled exposure.

Pursuant to the provisions of *OET Bulletin 65, Edition 97-01*, at multiple-user transmitter sites, only those licensees whose transmitters produce power density levels in excess of 5.0 percent of the applicable exposure limit are considered “significant contributors” and share responsibility for actions necessary to bring the local RFR environment into compliance with FCC exposure limits. Since the KEYE-DT operation will contribute less than 5.0 percent of the most restrictive permissible exposure at any location on the ground at the multiple-user

site, KEYE-DT is not considered a “significant contributor” to the local RF exposure environment and contributions to exposure from other sources in the vicinity of KEYE-DT were not taken into account in this analysis.

While not a “significant contributor” to the exposure levels at any location on the ground, the KEYE-DT operation will be a “significant contributor” to exposure at locations on the supporting structure near the KEYE-DT transmitting antenna. If work is done on the tower in an area where overexposure could occur, KTVT will take action necessary to prevent the overexposure of workers on the tower including reducing KEYE-DT transmitter power or ceasing KEYE-DT operation completely. Additionally, KTVT will cooperate with other site users to assure that work is performed at the site without exceeding the FCC MPEs for occupational/controlled exposure.

The instant proposal is categorically excluded from environmental processing since none of the conditions of Sections 1.1306(b)(1), (2), or (3) of the FCC Rules would be involved for the following reasons:

1. The KEYE-DT channel 43 facility will utilize a new supporting structure to be located at an existing communications site. Use of the existing

communications site will not impact any location referenced in Section 1.1306(b)(1) of the FCC Rules as being of environmental interest.

2. The provision of Section 1.1306(b)(2) of the FCC Rules relating to the use of high-intensity strobe lighting does not apply since the supporting structure will not be located in a site which is zoned residential.

3. Finally, with regard to RFR exposure concerns, compliance with applicable FCC MPE limits would be achieved.