

**ENVIRONMENTAL STUDY**

**KUTV HOLDINGS INC.  
STATION KUTV-DT SALT LAKE CITY, UTAH  
CH 34 423 KW (MAX-DA, BT) 1267 METERS**

KUTV Holdings Inc. proposes to operate the digital television (DTV) facilities of KUTV-DT, channel 34 (590 to 596 megahertz (MHz)), Salt Lake City, Utah, at an existing multiple-user transmitter site located at geographic coordinates 40° 39' 33" North Latitude, 112° 12' 07" West Longitude (referenced to 1927 North American Datum), using an existing shared horizontally polarized directional antenna, 423 kilowatts (kW) maximum average effective radiated power (ERP), and 1267 meters antenna radiation center height above average terrain. The proposed KUTV-DT antenna radiation center is 88 meters above ground level (AGL).

An analysis has been made of the human exposure to RFR using the calculation methodology described in *OET Bulletin 65, Edition 97-01*, prepared by the FCC Office of Engineering and Technology. This analysis was made at a reference point two meters ground level at the base of the existing KUTV-DT supporting structure. At this reference point, a conservative vertical plane relative

field factor of 0.1 for the KUTV-DT Kathrein, type K773928, transmitting antenna, was used in the calculation of the KUTV-DT power density. The proposed KUTV-DT maximum average ERP of 423 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 590 MHz, the lower edge of KUTV-DT channel 34.

The FCC maximum permissible exposure (MPE) limit for general population/uncontrolled exposure is 0.39 milliwatt-per-square-centimeter (mW/cm<sup>2</sup>) at 590 MHz. The FCC MPE limit for occupational/controlled exposure is 1.97 mW/cm<sup>2</sup> at 590 MHz. At the reference point two meters AGL at the base of the KUTV-DT antenna supporting structure, the calculated KUTV-DT power density is 0.019 mW/cm<sup>2</sup>, which is 4.9 percent of the FCC MPE limit for general population/uncontrolled exposure, and 1.0 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 KUTV-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, KUTV-DT is not considered a “significant contributor” to the local RF exposure environment and contributions to exposure from other sources in the vicinity of KUTV-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 KUTV-DT operation will be a “significant contributor” to exposure at locations on the supporting structure near the KUTV-DT transmitting antenna. If work is done on the tower in an area where overexposure could occur, KUTV Holdings Inc. will take action necessary to prevent the overexposure of workers on the tower including reducing KUTV-DT transmitter power or ceasing KUTV-DT operation completely. Additionally, KUTV Holdings Inc. 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 KUTV-DT channel 34 DTV facility will utilize an existing supporting structure that is not in or near 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 KUTV-DT transmitter site is not located in a residential area and no change in the existing lighting is proposed.

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