

**ENVIRONMENTAL STUDY**

**DESERT 31 TELEVISION, INC.  
STATION KVMD-DT TWENTYNINE PALMS, CALIFORNIA  
CH 23 150 KW (MAX-DA, BT) 784 METERS**

Desert 31 Television, Inc. (hereinafter Desert 31) proposes herein to operate the digital television (DTV) facilities of KVMD-DT, channel 23 (524 to 530 megahertz (MHz)), Twentynine Palms, California, at an existing transmitter site located at geographic coordinates 34° 02' 17" North Latitude, 116° 48' 47" West Longitude (referenced to 1927 North American Datum), using a horizontally polarized directional antenna, 150 kilowatts (kW) maximum average effective radiated power (ERP), and 784 meters antenna radiation center height above average terrain (HAAT). The proposed KVMD-DT antenna radiation center is 42 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. A conservative vertical plane relative field factor of 0.05, obtained from the manufacturer's theoretical vertical plane radiation pattern for the KVMD-DT, Andrew Corporation, type ATW25H3-HTC1-23S, transmitting antenna, was used in the calculation of the

KVMD-DT power density. The KVMD-DT maximum average ERP of 150 kW was used in the calculation of KVMD-DT power density. To account for ground reflections, a coefficient of 1.6 was included in the calculation. The KVMD-DT power density calculations reported herein were made at 524 MHz, the lower edge of the KVMD-DT channel.

The FCC maximum permissible exposure (MPE) limit for general population/uncontrolled exposure is 0.35 milliwatt-per-square-centimeter (mW/cm<sup>2</sup>) at 524 MHz. The FCC MPE limit for occupational/controlled exposure is 1.7 mW/cm<sup>2</sup> at 524 MHz. At a reference point two meters AGL at the base of the KVMD-DT supporting structure, the calculated KVMD-DT power density is 0.00783 mW/cm<sup>2</sup>, which is 2.2 percent of the FCC MPE limit for general population/uncontrolled exposure, and 0.46 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 proposed KVMD-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, KVMD-DT is not considered a “significant contributor” to the local RF exposure environment and contributions to exposure from other sources in the vicinity of KVMD-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 KVMD-DT operation will be a “significant contributor” to exposure at locations on the supporting structure near the KVMD-DT transmitting antenna. If work is done on the tower in an area where overexposure could occur, Desert 31 will take action necessary to prevent the overexposure of workers on the tower, including reducing KVMD-DT transmitter power or ceasing KVMD-DT operation completely. Additionally, Desert 31 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 KVMD-DT channel 23 DTV facility will utilize an existing supporting structure which 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 existing supporting structure proposed for KVMD-DT use is not located in a residential neighborhood, and is not equipped with high-intensity white strobe lighting. Thus, the provision of Section 1.1306(b)(2) of the FCC Rules relating to the use of high-intensity strobe lighting does not apply.

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