

**ENVIRONMENTAL STUDY**

**CORNERSTONE TELEVISION, INC.  
STATION WPCB-DT GREENSBURG, PENNSYLVANIA  
CH 50 340 KW (MAX-BT) 300 METERS**

Cornerstone Television, Inc. (hereinafter Cornerstone) proposes herein to operate the digital television (DTV) facilities of WPCB-DT, channel 50 (686 to 692 megahertz (MHz)), Greensburg, Pennsylvania, from an existing supporting structure located at geographic coordinates 40° 23' 34" North Latitude, 79° 46' 54" West Longitude (referenced to 1927 North American Datum), using a horizontally polarized antenna, 340 kilowatts (kW) maximum average effective radiated power (ERP), and 300 meters antenna radiation center height above average terrain (HAAT). The proposed WPCB-DT antenna radiation center is 252 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 0.1, obtained from the manufacturer's theoretical vertical plane radiation pattern for the proposed WPCB-DT, Dielectric Communications, type TFU-30GTH-R 04, transmitting antenna, was used in the calculation of the

WPCB-DT power density. This relative field factor was applied to the WPCB-DT maximum average ERP of 340 kW. To account for ground reflections, a coefficient of 1.6 was included in the calculation. The WPCB-DT power density calculations reported herein were made at 686 MHz, the lower edge of the WPCB-DT channel.

The FCC maximum permissible exposure (MPE) limit for general population/uncontrolled exposure is 0.46 milliwatt-per-square-centimeter (mW/cm<sup>2</sup>) at 686 MHz. The FCC MPE limit for occupational/controlled exposure is 2.29 mW/cm<sup>2</sup> at 686 MHz. At a reference point two meters AGL at the base of the WPCB-DT supporting structure, the calculated WPCB-DT power density is 0.00182 mW/cm<sup>2</sup>, which is 0.40 percent of the FCC MPE limit for general population/uncontrolled exposure, and 0.08 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 WPCB-DT operation will contribute less than 5.0 percent of the

most restrictive permissible exposure at any location on the ground at the site, WPCB-DT is not considered a “significant contributor” to the local RF exposure environment and contributions to exposure from other sources in the vicinity of WPCB-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 WPCB-DT operation will be a “significant contributor” to exposure at locations on the supporting structure near the WPCB-DT transmitting antenna. If work is done on the tower in an area where overexposure could occur, Cornerstone will take action necessary to prevent the overexposure of workers on the tower, including reducing WPCB-DT transmitter power or ceasing WPCB-DT operation completely. Additionally, Cornerstone 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 WPCB-DT channel 50 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 provision of Section 1.1306(b)(2) of the FCC Rules relating to the use of high-intensity strobe lighting does not apply since Cornerstone proposes to employ an existing supporting structure for WPCB-DT and no change is proposed to the structure's lighting.

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