ENVIRONMENTAL STUDY

CAROLINA CAPITAL COMMUNICATIONS, INC
STATION WKFT-DT FAYETTEVILLE, NC
CH 38 1000 KW (MAX-DA, BT) 509 METERS

Carolina Capital Communications, Inc. (herein Capital) proposes to operate the digital television (DTV) facilities of WKFT-DT, channel 38 (614 to 620 megahertz (MHz)), Fayetteville, North Carolina, at a transmitter site located at geographic coordinates 35° 30' 44" North Latitude, 78° 58' 41" West Longitude (referenced to 1927 North American Datum), using a horizontally polarized directional antenna, 1000 kilowatts (kW) maximum average effective radiated power (ERP), and 509 meters antenna radiation center height above average terrain. The proposed WKFT-DT antenna radiation center is 472 meters above ground level (AGL).

Public access to the WKFT-DT antenna and supporting structure will be restricted by a gated and locked, two-meter chain link fence topped with barbed

wire. There will be no casual or inadvertent access to the WKFT-DT transmitter site by the general public.

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 vertical plane relative field factor of 0.1, obtained from the manufacturer's theoretical vertical plane radiation pattern for the WKFT-DT, Dielectric Communications, type TFU-24DSC 3C140 DTV, transmitting antenna, was used in the calculation of the WKFT-DT power density. The WKFT-DT maximum average ERP of 1000 kW was used in the calculation of WKFT-DT power density. To account for ground reflections, a coefficient of 1.6 was included in the calculations. The WKFT-DT power density calculations reported herein were made at 614 MHz, the lower edge of the WKFT-DT channel.

The FCC maximum permissible exposure (MPE) limit for general population/uncontrolled exposure is 0.41 milliwatt-per-square-centimeter (mW/cm^2) at 614 MHz. The FCC MPE limit for occupational/controlled exposure is 2.05 mW/cm^2 at 614 MHz. At a reference point two meters AGL at the base of the WKFT-DT supporting structure, the calculated WKFT-DT power density is 0.0015 mW/cm^2, which is 0.37 percent of the FCC MPE limit for general population/uncontrolled exposure, and 0.07 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 WKFT-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, WKFT-DT is not considered a "significant contributor" to the local RF exposure environment and contributions to exposure from other sources in the vicinity of WKFT-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 WKFT-DT operation will be a "significant contributor" to exposure at locations on the supporting structure near the WKFT-DT transmitting antenna. If work is done on the tower in an area where overexposure could occur, Capital will take action necessary to prevent the overexposure of workers on the tower including reducing WKFT-DT transmitter power or ceasing WKFT-DT operation completely. Additionally, Capital 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 WKFT-DT channel 38 DTV facility will utilize a 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 strobe lighting is not used on the WKFT-DT tower.

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