DENNY & ASSOCIATES, P.C.
CONSULTING ENGINEERS
OXON HILL, MARYLAND

FCC FORM 301, EXHIBIT 43
ENVIRONMENTAL ASSESSMENT
APPLICATION FOR MODIFICATION OF
DTV CONSTRUCTION PERMIT
(FCC FILE NUMBER BMPCDT-20000501ADT)
PREPARED FOR
WCSC, INC.
STATION WCSC-DT
CHARLESTON, SOUTH CAROLINA
CH47 1000 KW (MAX-DA, BT) 521 METERS

ENGINEERING STATEMENT

This engineering exhibit was prepared on behalf of WCSC, Inc. (hereinafter WCSC), permittee of station WCSC-DT, Charleston, South Carolina, in support of an application for modification of construction permit (FCC File Number BMPCDT-20000501ADT) to specify a directional antenna system. No other changes are proposed.

The instant application proposes operation on channel 47 (668 to 674 megahertz (MHz)), with 1000 kilowatts (kW) maximum average effective radiated power (ERP), horizontally polarized, and 521 meters antenna radiation center height above average terrain (HAAT) from a site located at geographic coordinates 32º 55' 28" North Latitude, 79º 41' 58" West Longitude, referenced to the 1927 North American Datum (NAD27). WCSC proposes to use a Dielectric

Communications type TUP-C3-10-1 panel antenna providing a directional pattern described fully in Exhibit 40 of this application. The proposed WCSC-DT antenna radiation center is 520 meters above ground level (AGL). The WCSC-DT antenna supporting structure is a guyed tower with overall height of 609.6 meters above ground level (AGL). Public access to the WCSC-DT antenna and supporting structure will be restricted by a three-meter chain link fence, topped with barbed wire, which will encircle the WCSC-DT supporting structure.

The proposed WCSC-DT facility was evaluated in terms of potential human exposure to radio frequency radiation (RFR) at the proposed ERP of 1000 kW and at a frequency of 668 MHz, the lower edge of the WCSC-DT channel. A conservative vertical plane relative field factor of 0.034, obtained from the theoretical vertical plane radiation pattern supplied by Dielectric Communications for the type TUP-C3-10-1 transmitting antenna, was used in all subsequent calculations to determine estimates of RFR levels. To account for ground reflections, a coefficient of 1.6 was included in the calculations. All calculations were performed as outlined in *OET Bulletin 65, Edition 97-01*, prepared by the FCC Office of Engineering and technology.

The FCC maximum permissible exposure (MPE) for general population/uncontrolled exposure is 0.445 milliwatts per square centimeter (mW/cm^2) at 668 MHz. The FCC MPE limit for occupational/controlled exposure is 2.23 mW/cm^2 at 668 MHz. At a reference point two meters AGL at the base of the WCSC-DT supporting structure, the calculated WCSC-DT power density is 0.00014 mW/cm^2, which is 0.031 percent of the FCC MPE limit for general population/uncontrolled exposure, and 0.006 percent of the FCC MPE limit for occupational/controlled exposure.

Pursuant to the provisions of *OET Bulletin 65, edition 97-01*, at multiple-user 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 WCSC-DT operation will contribute less than 5.0 percent of the most restrictive permissible exposure at any location on the ground at the site, WCSC-DT is not considered a "significant contributor" to the local RF exposure environment and contributions to exposure from other sources in the vicinity of WCSC-DT were not taken into account in this analysis.

With regard to worker concerns, the calculations show that there is no risk of exposure to RFR levels in excess of the applicable occupational/controlled exposure MPE limit at any location at ground level around the base of the WCSC-DT tower. Potential for exposure to excessive levels of RFR exists for workers climbing the tower and approaching any of the transmitting antennas mounted on the tower. In order to protect workers from overexposure, WCSC will not permit workers to climb the tower while any of the facilities on the tower are in operation. In the event that it is necessary for maintenance workers to climb the tower to a location where overexposure might occur, WCSC personnel will ensure that all facilities on the tower have ceased transmissions before workers climb the tower. Warning signs will be posted at the base of the tower alerting workers to the potential for exposure to excessive RFR levels near energized antennas. By restricting access to the tower and placing warning signs at the base of the tower, appropriate coordination may be achieved to assure that all tower work is done in a way that avoids exposing workers to RFR levels in excess of the FCC MPE levels. Further, WCSC will cooperate fully with other licensees on the tower to prevent overexposure of workers.

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 WCSC-DT channel 47 DTV facility proposed herein will utilize an authorized 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 the tower is located in a non-residential area, and furthermore, applicant proposes no changes to the existing obstruction marking and lighting.

3. Finally, the provision of Section 1.1306(b)(2) of the FCC Rules relating to radio-frequency radiation (RFR) exposure concerns does not apply since compliance with the FCC MPE limits would be achieved with respect to both general population/uncontrolled and occupational /controlled exposures

CERTIFICATION

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge. Executed on December 6, 2002

Merl E. Rinehart, P.E.