

ENGINEERING STATEMENT  
REQUEST FOR CONSTRUCTION PERMIT  
FOR DISPLACED LICENSED FACILITY WKRP-LP  
ON BEHALF OF  
CAPITAL MEDIA, L.L.C.  
WASHINGTON, D.C. CHANNEL 23 (-) 4.5 KW ERP (MAX)

DECEMBER 2001

COHEN, DIPPELL AND EVERIST, P.C.  
CONSULTING ENGINEERS  
RADIO AND TELEVISION  
WASHINGTON, D.C.

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington )  
 ) ss  
District of Columbia )

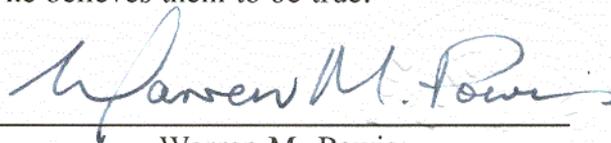
Warren M. Powis, being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer of the University of Canterbury, New Zealand, a Registered Professional Engineer in the District of Columbia, the State of Virginia, the State of South Carolina, and Vice President of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005; previously employed for 15 years with the New Zealand Broadcasting Corporation; a member of the Institution of Professional Engineers New Zealand (IPENZ), the Association of Federal Communications Consulting Engineers (AFCCE), and the National Society of Professional Engineers (NSPE).

That his qualifications are a matter of record in the Federal Communications Commission;

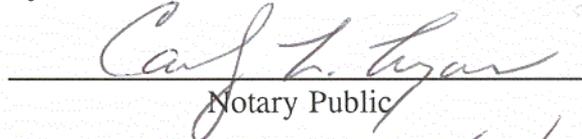
That the attached engineering report was prepared by him or under his supervision and direction and,

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.



Warren M. Powis  
District of Columbia  
Professional Engineer  
Registration No. 8339

Subscribed and sworn to before me this 30<sup>th</sup> day of November, 2001.



Notary Public

My Commission Expires: 2/28/2003



## INTRODUCTION

This engineering text is being filed on behalf of Capital Media, LLC, licensee of Low Power Television (“LPTV”) station WKRP-LP, Washington, D.C., in support of its application amendment to FCC File No. BPTTL-20010904AAD which proposed minor changes to the licensed facility with FCC File No. BLTTL-19901029JO due to displacement by a digital television (“DTV”) station. Specifically, WKRP-LP currently operates on Channel 42 (Z), is located less than 162 miles from and is predicted to cause interference to and receive interference from (and therefore is displaced by), the co-channel DTV Channel 42 allotment and authorization (File No: BMPEDT-20000501AIL) for WMPT-DT, Annapolis, Maryland. This engineering text supports a change to Channel 23(-) with a change in transmission site and radiation center above mean sea level.

## ANTENNA SITE

The proposed operation will be relocated to a tower north of the current transmitting site and operate from an antenna mounted from a pole on top of an existing tower. The tower is located at 4623 41<sup>st</sup> Street, N.W., Washington, D.C. and has FCC Tower Registration No. 1045845. The geographic coordinates of the site follow below:

North Latitude: 38° 57' 01"

West Longitude: 77° 04' 48"

NAD-27

ELEVATION DATA

Vertical dimension of Channel 23 antenna	6.3 meters
Elevation of site above mean sea level	124.9 meters
Center of radiation of Channel 23 antenna above ground	65 meters
Center of radiation of Channel 23 antenna above mean sea level	189.9 meters
Antenna height above average terrain	121.5 meters

TRANSMITTING EQUIPMENT

The following data provides the pertinent information concerning the proposed operation:

Transmitter:	Type-approved
Antenna:	Dielectric TLP8-J, 1.0° electrical beam tilt, 16.0 peak power gain, oriented at N 20° E
Transmission Line:	Andrew HJ7-50A, or equivalent 1-5/8"

ALLOCATION SITUATION

All low-power television and television translator stations in the Commission's Consolidated Database System (CDBS) dated November 15, 2001, in possession of a construction permit or license are protected by this proposal based on contour protection. Applications for new translator and low power television stations that were filed during the August 2000 major change window that have not yet received a construction permit or license have been disregarded due the displacement status of the applicant's currently licensed facility. See 47 C.F.R. §73.3572(a)(2)(ii).

There are two-full service analog or digital television stations that are predicted to receive prohibited contour overlap, WATM-TV and WLYH-DT. The proposal is short-spaced to WDCA(TV) and the WETA(TV) license and WETA(TV) construction permit. The site of the proposal is contained within the protected contour of WMPT(TV) license and WMPT(TV) construction permit and WUTB(TV). As provided for in §74.705(e) and Commission policies adopted in the DTV proceedings the applicant requests a waiver of the interference protection rules to the above noted stations by making full use of Longley-Rice terrain dependent propagation methods. The results of the Longley-Rice tests follow in Table 1 below. It was assumed that all calculated interference would be based upon new interference, accordingly interference masked by existing NTSC and DTV stations was ignored for the interference calculation.

**Table 1: New Interference Caused to Authorized Stations as Predicted Using L-R Methodology**

<u>Call</u>	<u>File No.</u>	<u>City/State</u>	<u>Channel</u>	<u>% NEW IX</u>
WDCA(TV)	BLCT-2091	Washington, DC	20	0.0
WMPT(TV)	BLET-381	Annapolis, MD	22	0.0
WMPT(TV)	BPET- 20000503ABO	Annapolis, MD	22	0.0
WAJM-TV	BLCT-19990311K6	Altoona, PA	23	0.0
WLYH-TV	BMPCDT- 20010924AAK	Lancaster, PA	23	0.0
WUTB(TV)	BLCT-19860103KG	Baltimore, MD	24	0.33
WETA-TV	BLET-438	Washington, DC	26	0.0
WETA-TV	BPET-19890111KE	Washington, DC	26	0.0

The results included in Table 1 show that no more than 0.49% new interference is expected to any existing full service television or digital television stations. Due to differences in terrain data and methodology, some differences are expected between these results and the results of the Commission; however, no full service analog or digital television station is still expected to receive more than the 0.49% interference rounding allowance from this proposal.

#### ENVIRONMENTAL STATEMENT

According to the applicant, the antenna site is not located near any known wilderness area, wildlife preserve, historic place or Indian religious site. The proposed facilities are not located in a flood plain area. The proposed facilities will not affect the threatened or endangered species or the critical habitats. Installation of the proposed antenna will not involve any significant changes in the surface features in excess of the current FCC guidelines. For these reasons, this proposal does not involve any actions specified in §1.1307 of the Commission's Rules.

An evaluation has been made to determine compliance with the FCC specified standards for human exposure to RF radiation as set forth in the OET Bulletin No. 65, Edition 97-01, August 1997. For a maximum effective radiated power of 4.5 kilowatts and an antenna downward radiation factor of 0.23 at 64° depression angle and a radiation center of 65 meters above ground level, the proposed operation would have a maximum less than 1.0 microwatts per square centimeter (microwatts/cm<sup>2</sup>) RF radiation at two meters above the base of the tower. This is less than 0.6 percent of 1757 microwatts/cm<sup>2</sup> maximum human exposure to RFF recommended by the current FCC guidelines for controlled exposure and less than 0.3 percent of the

uncontrolled exposure rate. The maximum human exposure to RFF recommended by the current FCC guidelines for uncontrolled exposure is 351.3 microwatts/cm<sup>2</sup>.

Authorized personnel working near the proposed transmitting facility will not be exposed to levels above those prescribed by the current FCC guidelines. With respect to work performed near the radiating elements, the applicant will establish procedures to ensure that the workers are not exposed to levels of radio frequency radiation exceeding current FCC guidelines for controlled exposure. The rooftop is “restricted access” and not accessible to the public.