

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of TVT LICENSE, INC., licensee of WTVT-DT, Channel 12 in Tampa, Florida, in support of its Application for Construction Permit to operate on Channel 12 with its allotted post-transition DTV facility.

It is proposed to utilize the existing WTVT-DT Andrew omnidirectional antenna (with 0.25 degrees mechanical beam tilt at 270 degrees true) at the 434-meter level of the existing 446-meter tower on which the WTVT-DT antenna is presently mounted. Exhibit B provides antenna elevation and azimuth pattern data, and proposed operating parameters are tabulated in Exhibit C. Exhibit D is a map upon which the predicted service contours are plotted. As shown, the city of license is completely contained within the proposed 43 dBu service contour. Since the instant application proposes operation with the exact parameters assigned to the station in Appendix B of the Commission's DTV Table of Allotments, no interference study is included. A power density calculation is provided in Exhibit E.

It is not expected that the proposed facility would cause objectionable interference to any other broadcast or non-broadcast station authorized to operate at or near the WTVT-DT site. However, if such should occur, the owner of this station recognizes its obligation to take whatever corrective actions are necessary.

Since no change in overall height or location of the existing tower is proposed herein, the FAA has not been notified of this application. In addition, the FCC issued Antenna Structure Registration Number 1017603 to this tower.

I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.



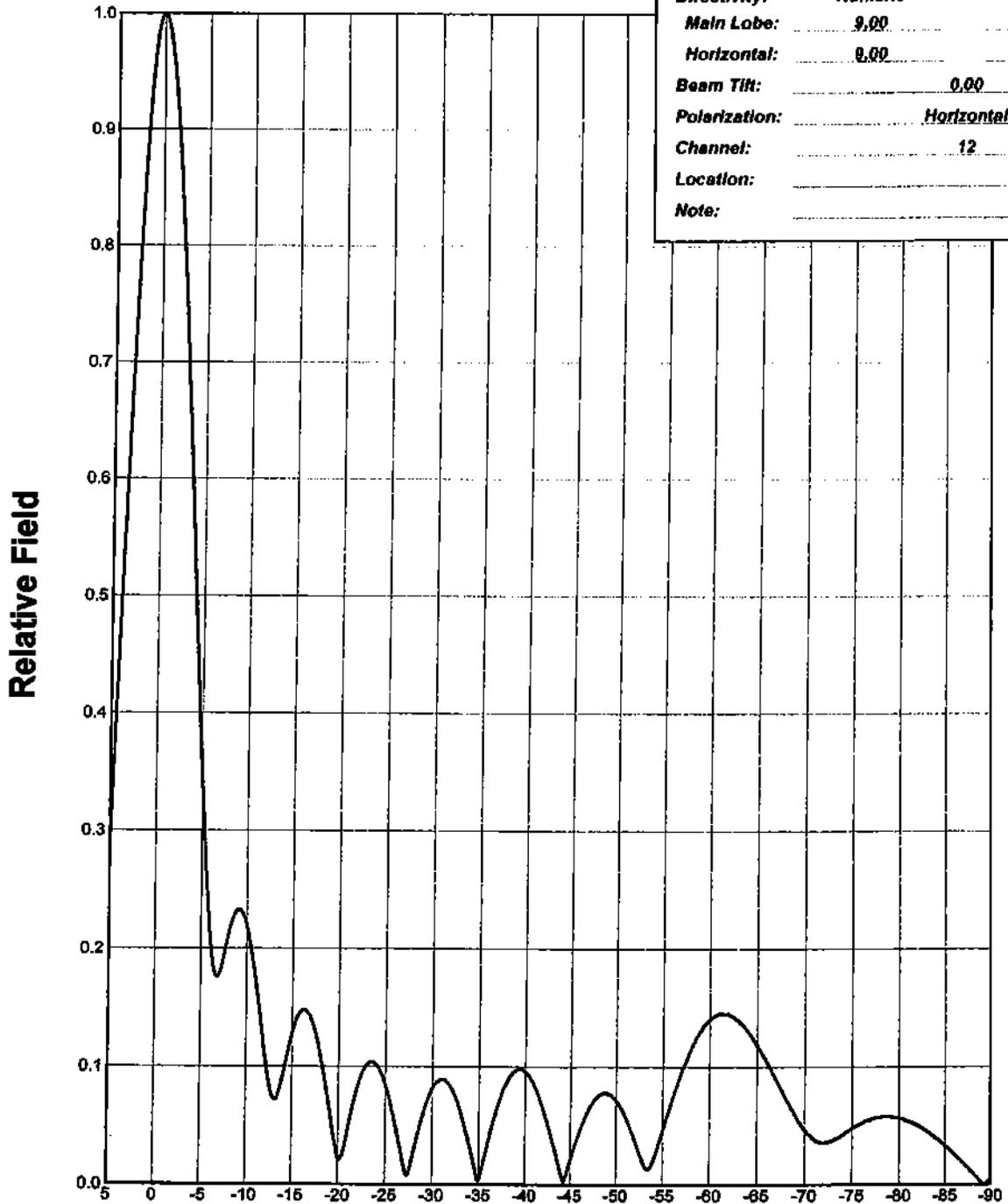
KEVIN T. FISHER

February 26, 2008



### ELEVATION PATTERN

Type:	ATWVY1H	
Directivity:	Numeric	dBd
Main Lobe:	9.00	9.54
Horizontal:	0.00	9.54
Beam Tilt:	0.00	
Polarization:	Horizontal	
Channel:	12	
Location:		
Note:		



Electronica Research, Inc.  
7777 Gardner Road  
Chandler, Indiana U.S.A 47610

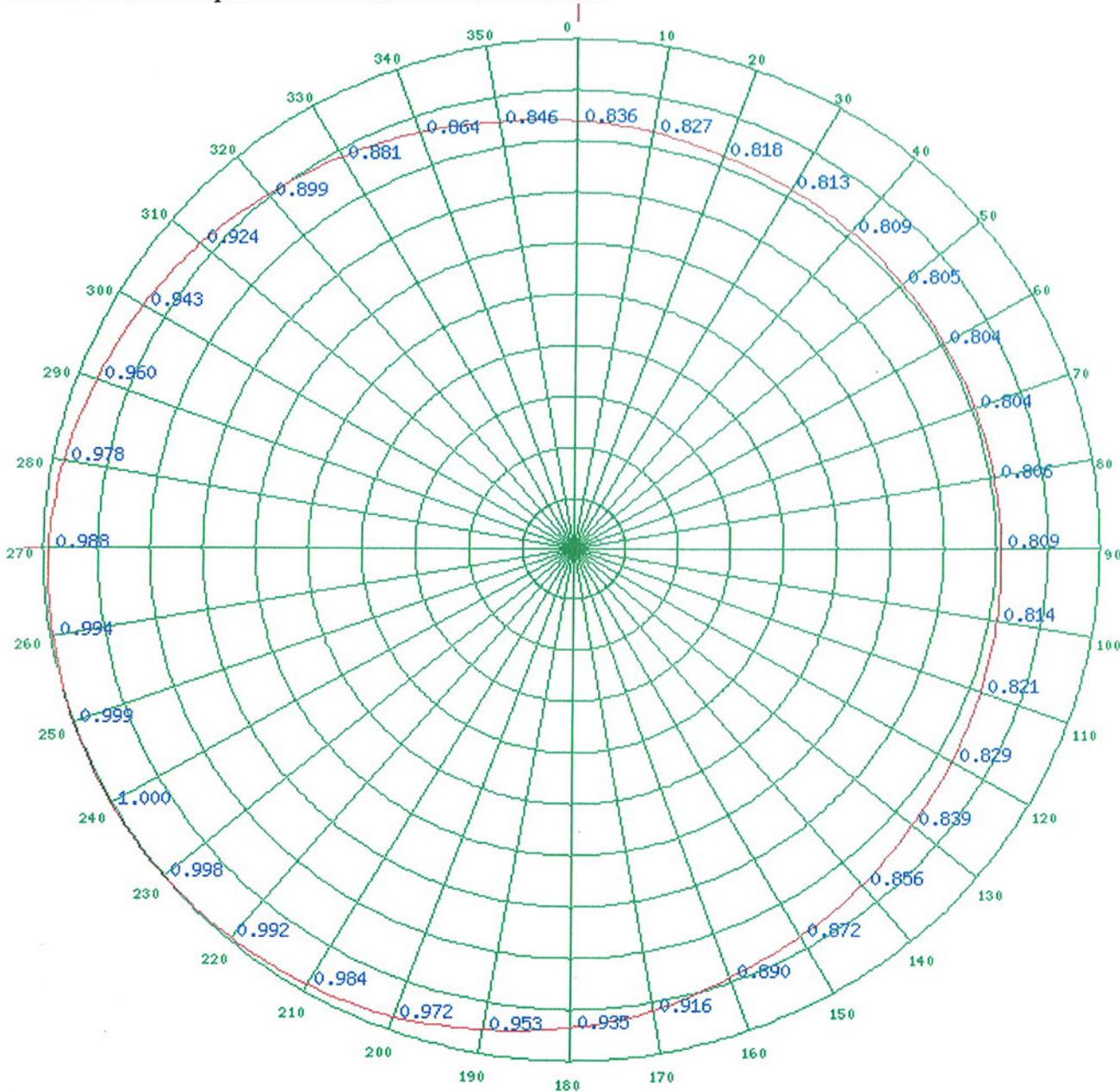
#### EXHIBIT B-1

ANTENNA ELEVATION PATTERN

PROPOSED WTVT-DT  
CHANNEL 12 - TAMPA, FLORIDA

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Any specified rotation has already been applied to the plotted pattern.  
Field strength values shown on a rotated pattern may differ from the listed values because intermediate azimuths are interpolated between entered azimuths.



**EXHIBIT B-2**  
**ANTENNA AZIMUTH PATTERN**  
**PROPOSED WTVT-DT**  
**CHANNEL 12 – TAMPA, FLORIDA**  
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## ANTENNA AZIMUTH PATTERN DATA

PROPOSED WTVT-DT  
CHANNEL 12 – TAMPA, FLORIDA

<u>Azimuth</u> <u>(° T)</u>	<u>Relative</u> <u>Field</u>	<u>ERP</u> <u>(dbk)</u>	<u>Azimuth</u> <u>(° T)</u>	<u>Relative</u> <u>Field</u>	<u>ERP</u> <u>(dbk)</u>
0	0.836	17.0	180	0.935	18.0
10	0.827	17.0	190	0.953	18.2
20	0.818	16.9	200	0.972	18.4
30	0.813	16.8	210	0.984	18.5
40	0.809	16.8	220	0.992	18.5
50	0.805	16.7	230	0.998	18.6
60	0.804	16.7	240	1.000	18.6
70	0.804	16.7	250	0.999	18.6
80	0.806	16.7	260	0.994	18.5
90	0.809	16.8	270	0.988	18.5
100	0.814	16.8	280	0.978	18.4
110	0.821	16.9	290	0.960	18.2
120	0.829	17.0	300	0.943	18.1
130	0.839	17.1	310	0.924	17.9
140	0.856	17.2	320	0.899	17.7
150	0.872	17.4	330	0.881	17.5
160	0.890	17.6	340	0.864	17.3
170	0.916	17.8	350	0.846	17.1

PROPOSED OPERATING PARAMETERS

PROPOSED WTVT-DT  
CHANNEL 12 – TAMPA, FLORIDA

Transmitter Power Output:	12.9 kw (11.1 dBk)
Transmission Line Efficiency:	78.3% (1.1 dB)
Antenna Input Power:	10.1 kw (10.0 dBk)
Antenna Power Gain – Main Lobe:	7.19 (8.6 dB)
Effective Radiated Power – Main Lobe:	72.3 kw (18.6 dBk)

Antenna:

Make and Model:	Andrew ATW9V3-ETS-12
Orientation	Omnidirectional
Electrical Beam Tilt	0.75 degrees
Mechanical Beam Tilt	0.25 degrees (at 270° T)
Radiation Center Above Ground:	434 meters
Radiation Center Above Mean Sea Level:	460 meters

\*estimated

**CONTOUR POPULATION**

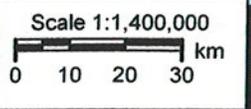
**43 DBU : 3,921,703**

**36 DBU : 4,512,930**

**SMITH and FISHER**

36 DBU

43 DBU



**EXHIBIT D**

**PREDICTED SERVICE CONTOURS**

**PROPOSED WTVT-DT  
CHANNEL 12 - TAMPA, FLORIDA**

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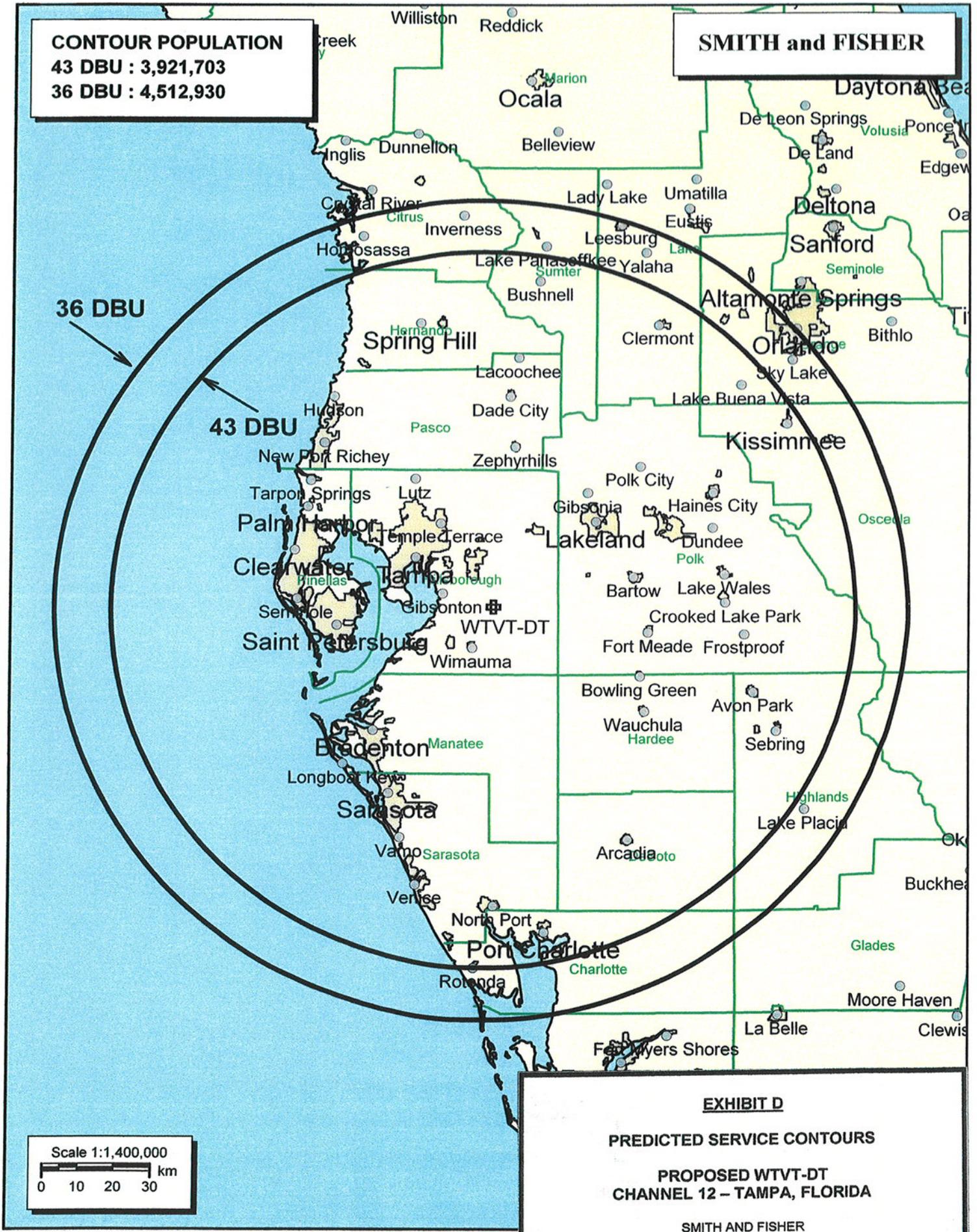


EXHIBIT E

POWER DENSITY CALCULATION

PROPOSED WTVT-DT  
CHANNEL 12 – TAMPA, FLORIDA

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Tampa facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 72.3 kw, an antenna radiation center 434 meters above ground, and the elevation pattern of the Andrew antenna, maximum power density two meters above ground of  $0.00041 \text{ mw/cm}^2$  is calculated to occur 220 meters from the base of the tower. Since this is only 0.2 percent of the  $0.2 \text{ mw/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 12 (204-210 MHz), a grant of this proposal may be considered a minor environmental action with respect to public and occupational ground-level exposure to nonionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive nonionizing radiation.