

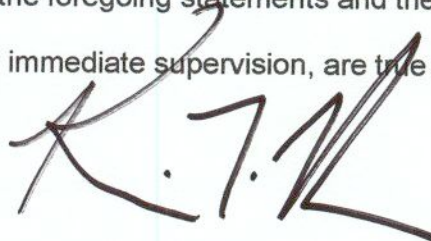
ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of TRINITY BROADCASTING NETWORK, permittee of television translator K32GF, Channel 32 in Rhineland, Wisconsin, in support of this application for modification of Construction Permit BMPTT-20041217AAK to specify a new site.

It is proposed to mount a standard Andrew omnidirectional antenna at the 89-meter level of an existing 123-meter communications tower. Exhibit B is a map upon which the predicted service contours are plotted. It is important to note that the newly proposed 74 dBu contour encompasses a significant portion of that which obtains from the authorized K32GF facility. Operating parameters for the proposed facility are tabulated in Exhibit C. A contour overlap analysis is provided in Exhibit D, and a power density calculation follows as Exhibit E.

Because no change in the overall height or location of the existing tower is proposed, the FAA has not been notified of this application. The FCC issued Antenna Structure Registration Number 1048463 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.

A handwritten signature in dark ink, appearing to read 'K. T. Fisher', with a large, stylized flourish extending from the end.

KEVIN T. FISHER

March 18, 2005

**CONTOUR POPULATION**  
**GRADE A (74 DBU) : 5,616**  
**GRADE B (64 DBU) : 30,127**

**SMITH and FISHER**

Vilas

**GRADE B**

**GRADE A**

Eagle River

Proposed Site

Oneida

Rhinelander

Grand

Scale 1:300,000

0 4 8 12 km

**EXHIBIT B**

## PROPOSED OPERATING PARAMETERS

PROPOSED K32GF  
CHANNEL 32 – RHINELANDER, WISCONSIN  
[MODIFICATION OF BMPTT-20041217AAK]

Transmitter Power Output:	1.0 kw
Transmission Line Efficiency:	56.4%
Antenna Power Gain – Toward Horizon:	14.06
Antenna Power Gain – Main Lobe:	14.06
Effective Radiated Power – Toward Horizon:	7.9 kw
Effective Radiated Power – Main Lobe:	7.9 kw
Transmitter Make and Model:	Type-accepted
Rated Output	1.0 kw
Transmission Line Make and Model:	Andrew LDF6-50
Size and Type:	1-1/4" foam heliax
Length:	350 feet
Antenna Make and Model:	Andrew AL8
Orientation	Omnidirectional
Beam Tilt	1.75 degrees
Effective Height Above Ground:	89 meters
Effective Height Above Mean Sea Level:	601 meters



CONTOUR OVERLAP STUDY  
PROPOSED K32GF  
CHANNEL 32 – RHINELANDER, WISCONSIN  
[MODIFICATION OF BMPTT-20041217AAK]

We conducted a computer analysis of the interference situation for the proposed facility, the results of which are shown in Exhibit D-2. The study is based on contour protection requirements of Sections 74.705, 74.706, and 74.707 of the FCC's Rules with respect to analog full-power, digital full-power, and low power television stations, respectively. It concludes that the facility proposed herein meets these requirements to all stations.

SMITH AND FISHER

EXHIBIT D-2

PROPOSED K32GF  
CH. 32 - RHINELANDER WI

REFERENCE  
45 46 28 N LPTV Pwr = 7.9 kW, HAMS L COR= 601 M  
89 14 54 W

DISPLAY DATES  
DATA 03-16-05  
SEARCH 03-17-05

..... Channel 32-, 578 MHz .....

Call	Channel	Location	Dist	Azi	FCC	Margin	
K32GF CPM	32-	Rhineland	WI	13.98	247.4	> 151.46	-137.48
W31BA* LI	31+	Minocqua	WI	44.68	286.8	> 025.58	-27.78
W32DA* CP	32-	Houghton	MI	156.48	19.2	> 150.26	6.22
WACY* LI	32+	Appleton	WI	186.40	147.2	> 171.61	14.79
WCCO-D*LI	32	Minneapolis	MN	314.67	256.8	> 292.26	22.41
W32CV* LI	32+	Ironwood	MI	103.91	315.9	> 077.77	28.13
WBUW-D*LI	32	Janesville	WI	303.24	183.7	> 277.40	29.60
W31CI CPM	31-	Wausau	WI	92.23	197.6	> 031.48	60.75

\* Actual radials antenna height and directional patterns used (if any)

POWER DENSITY CALCULATION

PROPOSED K32GF  
CHANNEL 32 – RHINELANDER, WISCONSIN  
[MODIFICATION OF BMPTT-20041217AAK]

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Rhinelander facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 7.9 kw, an effective antenna height of 89 meters above ground, and the vertical pattern of the Andrew antenna, maximum power density two meters above ground of  $0.00016 \text{ mw/cm}^2$  is calculated to occur 78 meters from the base of the tower. Since this is significantly less than 0.1 percent of the  $0.39 \text{ mw/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 32 (578-584 MHz), this proposal may be excluded from consideration with respect to public 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.