

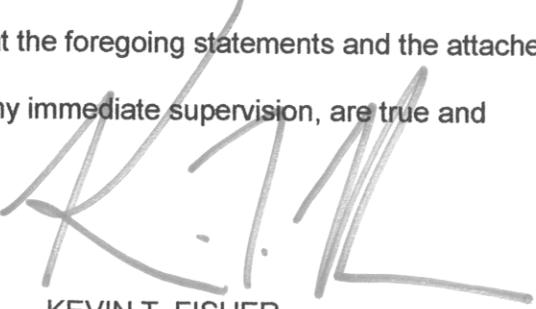
## ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of TRI-STATE CHRISTIAN TV, INC., licensee of Class A Television Station WDYR-CA, Channel 33 in Dyersburg, Tennessee, in support of this Application for Construction Permit to specify an increase in height and a decrease in effective radiated power. No change in antenna model or site location is proposed herein.

It is proposed to re-mount the licensed Andrew directional antenna at the 157-meter level of the existing communications tower. Exhibit B is a map upon which the predicted service contours are plotted. Since no change in site location is proposed herein, the newly proposed 74 dBu contour necessarily encompasses a significant portion of that which obtains from the authorized WDYR-CA facility. Therefore, the changes proposed herein constitute a "minor" change in facilities. Operating parameters for the proposed facility are tabulated in Exhibit C. A contour overlap analysis and interference study are 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 1059207 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.

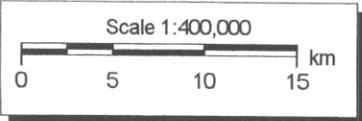
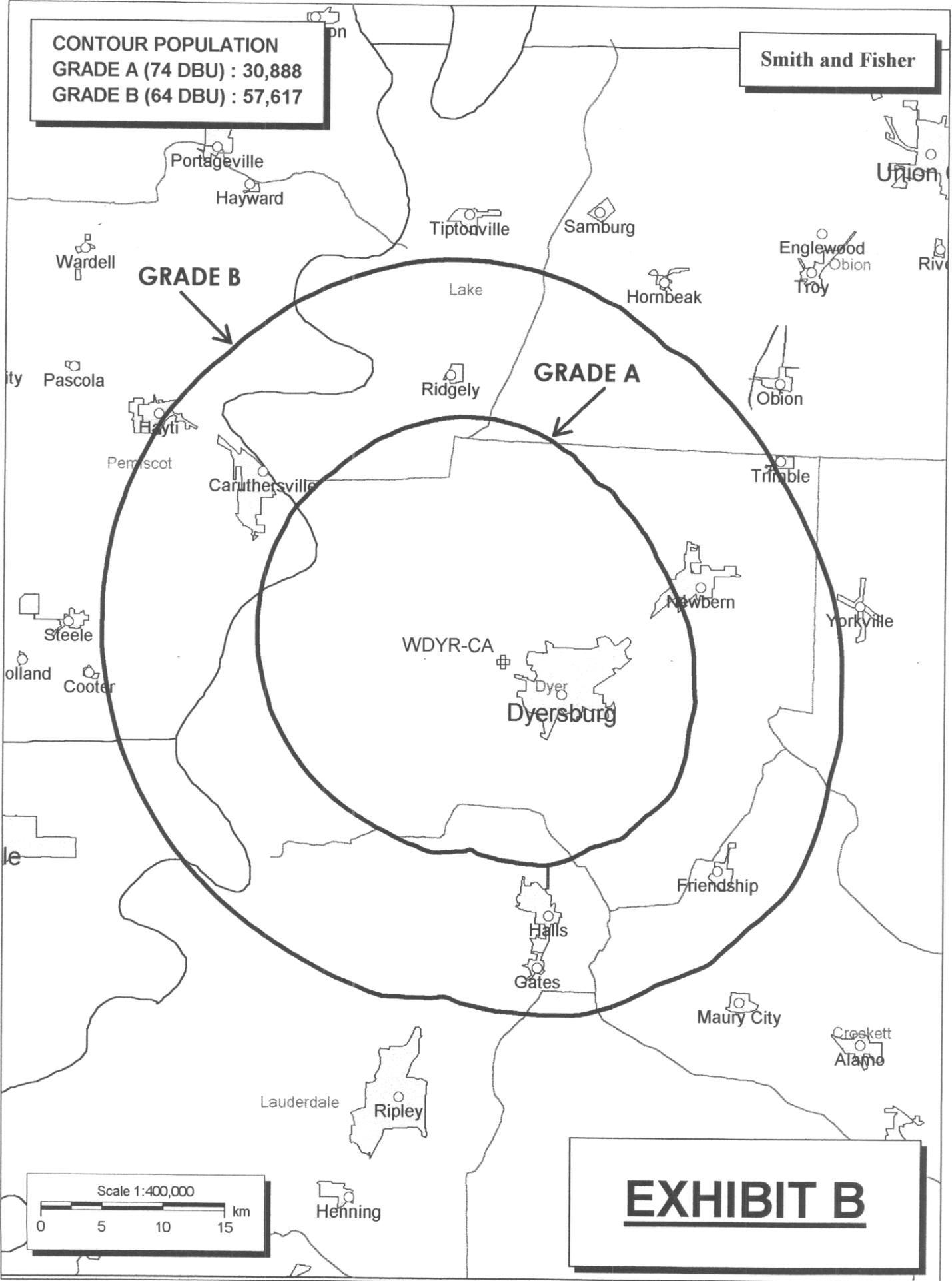


KEVIN T. FISHER

January 28, 2003

CONTOUR POPULATION  
GRADE A (74 DBU) : 30,888  
GRADE B (64 DBU) : 57,617

Smith and Fisher



**EXHIBIT B**

## PROPOSED OPERATING PARAMETERS

PROPOSED WDYR-CA  
CHANNEL 33 – DYERSBURG, TENNESSEE

Transmitter Power Output:	1.0 kw
Transmission Line Efficiency:	51.7%
Antenna Power Gain – Toward Horizon:	21.49
Antenna Power Gain – Main Lobe:	21.49
Effective Radiated Power – Toward Horizon:	11.1 kw
Effective Radiated Power – Main Lobe:	11.1 kw
Transmitter Make and Model:	Type-accepted
Rated Output	1.0 kw
Transmission Line Make and Model:	Andrew HJ7-50A
Size and Type:	1-5/8" air heliax
Length:	550 feet
Antenna Make and Model:	Andrew ALP12L2-HSOC
Orientation	315 degrees true
Beam Tilt	0.5 degrees
Effective Height Above Ground:	157 meters
Effective Height Above Mean Sea Level:	267 meters

CONTOUR OVERLAP AND  
INTERFERENCE STUDIES  
PROPOSED WDYR-CA  
CHANNEL 33 – DYERSBURG, TENNESSEE

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.

EXHIBIT D-2

PROPOSED WDYR-CA  
CH. 33 - DYERSBURG TN

REFERENCE  
36 03 28 N  
89 26 19 W

LPTV Pwr = 11.1 kW, HANSL COR= 271 M

DISPLAY DATES  
DATA 01-16-03  
SEARCH 01-27-03

..... Channel 33-, 584 MHz .....

Call	Channel	Location	Dist	Azi	FCC	Margin
NEW*	AP 33+	Jackson TN	76.80	131.0	> 074.79	2.01
NEW*	AP 33+	Jackson TN	73.11	126.6	> 080.99	7.65
NEW*	AP 33+	Jackson TN	84.95	125.6	> 082.81	8.52
WPSD-D*CP	32	Paducah KY	132.33	17.8	> 121.73	10.60
WBUY	LI 40Z	Holly Springs MS	120.71	190.8	> 100.00	20.71
WBKO-D*CP	33	Bowling Green KY	291.15	66.5	> 264.00	28.42
NEW*	AP 33+	Henderson TN	97.66	134.1	> 072.15	32.68
K46EM*	AP 33Z	Jonesburo AR	113.83	264.5	> 107.36	39.64
KTEJ	LI 19+	Jonesboro AR	121.33	262.3	> 081.53	39.80
WBKO-D*ST	33	Bowling Green KY	291.15	66.5	> 246.63	44.57
KSPR*	LI 33-	Springfield MO	339.35	293.4	> 313.19	44.59
AL9607	AL 34-	Senatobia MS	166.90	196.8	> 122.17	44.73
K33EQ	LI 33Z	Cape Girardeau MO	122.70	352.9	> 073.27	49.43
WVIE-L	AP 33-	Nashville TN	238.22	83.6	> 183.44	54.78
AP600	AP 34-	Senatobia MS	143.75	201.2	> 087.86	55.89
AP431	AP 34-	Senatobia MS	143.39	201.1	> 076.06	67.33
WSILTV	ALD 34	HARRISBURG IL	179.81	16.1	> 106.62	73.19
WSIL-D	CP 34	Harrisburg IL	179.92	16.1	> 106.60	73.32

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

POWER DENSITY CALCULATION  
PROPOSED WDYR-CA  
CHANNEL 33 – DYERSBURG, TENNESSEE

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Dyersburg facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 11.1 kw, an effective antenna height of 157 meters above ground, and the vertical pattern of the Andrew antenna, maximum power density two meters above ground of  $0.00048 \text{ mw/cm}^2$  is calculated to occur 63 meters northwest of the base of the tower. Since this is only 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 33 (584-590 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.