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1776 K STREET NW WASHINGTON, DC 20006 PHONE 202,719,7000 202,719,7049

Virginia Office 7925 JONES BRANCH DRIVE SUITE 6200 MILEAN, VA 22102 PHONE 703.905.2800 703.905.2820

www.wrf.com

November 14, 2001

IEAL GOLMANICATIONS CONMISSIO NE OF THE SECRETARY

Todd M. Stansbury 202.719.4948 tstansbu@wrf.com

Magalie Roman Salas, Secretary Federal Communications Commission The Portals 445 Twelfth Street SW 12th Street Lobby, TW-A325 Washington DC 20554

Re: KCRB(FM). Bemidji, MN

FCC File No. BPED-20010208AAM

Minnesota Public Radio

Application for Modification of Construction Permit

Dear Ms. Salas:

On behalf of Minnesota Public Radio ("MPR"), licensee of KCRB(FM), Bemidji, Minnesota, enclosed filing, in triplicate, is an application on FCC Form 340 to make minor modifications to construction permit No. BPED-20010208AAM. MPR is a noncommercial educational licensee, therefore, no fee is required for this filing.

Please contact this office if there are any questions.

Respectfully submitted.

odd M Stangbury

Federal Communic Washington, D. C.	ations Commiss 20554	OII

Approved by OMB 3060-0034

APPLICATION FOR CONSTRUCTION PERMIT FOR RESERVED CHANNEL NONCOMMERCIAL

FCC 340

FOR FCC USE ONLY		
FOR CO	MMISSION USE ONLY	
FILE NO	<u>. </u>	

	EDUCATIONAL BRUADCAST STATION	TIEL	<u> </u>	
Sec	ction I - General Information			
1.	Legal Name of the Licensee/Permittee	···-		·
	Minnesota Public Radio			
	Mailing Address	 -		
	45 East Seventh Street			
	City St. Paul	State or Cou	ntry (if foreign address)	ZIP Code 55101
	Telephone Number (include area code) 651 290-1500	E-Mail Addr	ess (if available)	1 33101
	Call Sign KC		Facility Identifier 4297	0
2.	Contact Personnective (if all and the things	T ====		
	Contact Representative (if other than licensee/permittee)	Firm or Com	pany Name	
	Todd Stansbury	Wiley Re	in & Fielding	
	Telephone Number (include area code) 202-719-4948	E-Mail Addr	ess (if available)	
		<u>ı uştanşbu</u>	ry@wrf.com	
3.	Is this application being filed in response to a window?		Yes X	l _{No}
	If Yes, specify closing date and/or window number:			,
				
4.	Application Purpose.			
	New station	Major Mod	ification of construction perm	nit
	Major Change in licensed facility	Minor Mod	ification of construction pern	nit
	Minor Change in licensed facility	See Ex Major Ame	#E1, Engineering S	tatement n
			ndment to pending application	
	a. File number of original construction permit: BPED2	0010208AA		 N/A
	b. Service Type: X FM TV D			IVA
		rv		
	c. Community of License: City Bemidji	S	tate MN	
	d. Facility Type: X Main Auxiliary			
	If an amendment, submit as an Exhibit a listing Number of the portions of the pending application tha	by Section :	and Question Exhibit N	o.

This box is for FCC use only;	
Technical Points:	
0 points.	
l point. Applicant's proposal covers the largest area and p best proposal; or	copulation, and both area and population are 18% greater than nex
2 points. Applicant's proposal covers the largest area and best proposal.	population, and both area and population are 25% greater than nex
POINTS CLAIMED BY APPLICANT (fre	om Questions 1-3)
TECHNICAL POINTS? (from Question 4	0
TOTAL POINTS	
Section V - Tie Breakers - New and Major Change Applicate applicants receiving the same number of points in Section IV)	ions Only (used to choose among competing radio and television
broadcast station authorizations. Radio applicants should commercial and noncommercial, and FM translator stations of	the applicant certifies that it and other parties to the application on 73.3555, attributable interests in the stated number of relevant count all attributable full service radio stations, AM and FM, ther than fill-in stations or those identified in IV(2)(b) above. TV ions, commercial and noncommercial and TV translator stations
(number of commercial and noncommercial	licenses and construction permits)
as of the date of pling and pursuant to 47 C.F.R. Section applications for new or major changes to relevant broadcast s radio stations, AM and FM, commercial and noncommercial	
Section VI - Certification	. ,
I certify that the statements in this application are true, complete, ar good faith. I acknowledge that all certifications and attached Exhiclaim to the use of any particular frequency as against the regulate same, whether by license or otherwise, and request an authorizati Communications Act of 1934, as amended.)	bits are considered material representations. I hereby waive any power of the United States because of the previous use of the
Typed or Printed Name of Person Signing	Typed or Printed Title of Person Signing
Thomas J kigin	Executive Vice President
Signature / Numas) / Con	Date 2001.11.09

NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.

CERTIFICATION

AUXILIARY ANTENNA APPLICANTS ARE NOT REQUIRED TO RESPOND TO ITEMS 12-16.

12.	Main Se Section 7	udio Location. The proposed main studio location complies with 47 C.F.I. 3.1125.	R. X Yes No See Explanation in Exhibit No. E2
13.	Interfere Check all	nce. The proposed facility complies with all of the following rule sections those that apply.	Yes No See Explanation in Exhibit No.
	Contour	Overlap Requirements.	
	a. X	47 C.F.R. Section 73.509. Exhibit Required.	Exhibit No.
	Spacing	Requirements.	.
	ь 🗆	47 C.F.R. Section 73.207 with respect to station(s): N/A	
	Grandfa	thered Short-Spaced.	
	с. 🔲	47 C.F.R. Section 73.213(a) with respect to station(s):Exhibit Required.	Exhibit No. N/A
	Contour	Protection.	
	d. 🗀	47 C.F.R. Section 73.215 with respect to station(s): Exhibit Required.	Exhibit No. N/A
	Televisio	Channel 6 Protection.	
	e. 🗓	47 C.F.R. Section 73.525 with respect to station(s): WDAYTV, KBJRTV Exhibit Required.	Exhibit No. E4
14.	Reserved	Channels Above 220.	
	a. Allo C.F.	ment. The proposed facility complies with the allotment requirements of 47 c. Section 73.203.	Yes No See Explanation in Exhibit No. N/A
	b. Com 73.3	munity Coverage. The proposed facility complies with 47 C.F.R. Section 5.	Yes No See Explanation in Exhibit No. N/A
15.	Internation the commo	nal Borders. The proposed antenna location is not within 320 kilometers of on border between the United States and Canada or Mexico.	Y Yes No
			X Canada Mexico
	If "No," sp the relevan	ecify the country and provide an Exhibit of compliance with all provisions of t International Agreement.	Exhibit No. E3

FCC 340 (Page 10) March 2001

Environmental Protection Act. The proposed facility is excluded from environmental processing under 47 C.F.R. Section 1.1306 (i.e., the facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine compliance through the use of the RF worksheets in Worksheet #7,
an Exhibit is required.

X Yes No See Explanation in Exhibit No. E5

By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.

PREPARER'S CERTIFICATION ON PAGE 8 MUST BE COMPLETED AND SIGNED.

Section VII -- Preparer's Certification

I certify that I have prepared Section VII (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name Katherine A. Michler	Technical Consul	Relationship to Applicant (e.g., Consulting Engineer) Technical Consultant		
Signature Kathereach Meri				
Doug Vernier Telecommunications	Consultants, 1600 Picturesque Dr	ive		
Cedar Falls	State or Country (if foreign address) IA	ZIP Code 50613		
Telephone Number (include area code) 319 266-8402	E-Mail Address (if available) kmichler@v-soft.com	E-Mail Address (if available)		

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).



EXHIBIT #E1ENGINEERING STATEMENT

Concerning the Application of
Minnesota Public Radio
To Make a Minor Modification to
The Construction Permit for KCRBFM,
A Non-Commercial FM Station
Serving Bemidji, Minnesota

BPED20010208AAM

November 2001

Channel 203C1

100 kW H & V

This engineering statement supports the application filed by Minnesota Public Radio to make a minor modification to the construction permit for KCRBFM, a non-commercial, educational FM station serving Bemidji, Minnesota.

Minnesota Public Radio (MPR) proposes to change the antenna location, as the previously authorized site is no longer usable. No other changes are being proposed. The applicant has notified the Federal Aviation Administration office in Des Plaines, Illinois about this proposal. When the FAA has made its determination, MPR will apply to register the tower with the FCC.

Exhibit #E2 is a map of the proposed 1 mV/m (60 dBu) signal contour. Bemidji, Minnesota, the city of licensee, is shown to be fully encompassed by this contour. The main studio is located in Bemidji. The coverage map was computer generated using the U.S.G.S. World Map database. Three hundred and sixty evenly spaced radials were used to plot the 60 dBu contour. The area within the proposed one mV/m contour amounts to 16,359 square kilometers. This figure was determined using numerical calculus. The distance to the one mV/m signal contour along each of 360 evenly spaced radial azimuths was squared and then the average of the sum of these distances was calculated. The resulting average radius squared was then multiplied by π to determine the area within the contour. The population within the 60 dBu service contour was determined to be 64,896 people through the use of a computer program which extracts a population count based on population centroids defined by U.S. Census 2000 (PL-94-171) digital census block data.

Thirty-six evenly spaced radials were used to determine the antenna height above average terrain. The N.G.D.C. 30 arc-second terrain database was used to determine the

 radial elevations at 0.1 kilometer increments from 3 to 16 kilometers. The elevation points were averaged using the required four-point interpolation method and then the average was employed to project antenna heights above average terrain and the consequent distances to signal contours along the pertinent radials. (See a tabular listing of these contour distances on page #3 of this exhibit.)

Exhibit #E3 is a single channel, contour to contour, allocation study showing that interference is neither caused nor received by an FM radio station, application for facilities or construction permit. Page #2 is a description of the methods used to prepare this study. Pages 3-4 are a map and FMOVER table of the relationship between the proposed KCRBFM and AP202, an application for first adjacent channel 202 in International Falls, MN. The first-adjacent channel relationship between the new KCRBFM and an application in Brainerd (BPED19981113MC) is shown on the map and FMOVER table on pages 5-6. There are no I.F. relationships. The proposal is within 320 kilometers of the U.S. border with Canada, however all Working Agreement minimum separation spacings are met or exceeded.

Exhibit #E4 is a Channel 6 TV study, showing a map of the 47 dBu, Grade B, protected signal contours of KBRJTV, Superior, Wisconsin and WDAYTV, Fargo, North Dakota. The map also contains a plot of the proposed facility's 53.5 dBu F(50-10) interference signal, as defined by Section 73.525 of the Commission's rules. This contour was produced using a mixed polarization study power of 102.5 kW (100 + 100/40). Although the 6 dB receiving antenna directivity credit was applicable, it was not used in this "worst case" scenario. The FM interference contour is completely outside the Grade B contour of KBRJTV, but does intersect with the Grade B of WDAYTV. There are 460 people in the interference area, based on 2000 census block data. Pages #2-4 are tabular printouts of the predicted distances to the relevant contours used in the study.

Exhibit #E5 shows compliance with the Commission's R.F. emission's standards.

Page #4 of this exhibit (Ex. # E1) is a declaration made by the preparer, Kate Michler, attesting to her qualifications.

Doug Vernier Telecommunications Consultants Ex $\#E1,\ Pg$ #3 KCRBFM, Minnesota Public Radio, BPED20010208AAM ERP = 100 kW Channel = 203

	`	21141116 = 203		
Azimuth Deg.T.	Ave. Elev. 3 to 16 km Meters AMSL	Effective Antenna Height Meters AAT	ERP 6	F(50-50) Distance to OdBu Contour km
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350	397.9 402.6 405.6 407.2 411.6 415.8 419.1 420.9 428.2 426.9 419.7 417.6 411.4 416.1 415.8 417.5 419.6 416.5 418.8 421.4 418.9 423.3 429.6 430.7 428.2 425.1 409.8 404.2 397.3 392.7 394.0	315.0 310.3 307.3 305.7 301.3 297.1 293.8 292.0 284.7 286.0 290.0 293.1 293.2 295.3 300.3 301.5 296.8 297.1 295.4 293.3 296.4 293.3 296.4 294.1 291.5 294.0 289.6 283.3 282.2 284.7 287.8 290.7 299.8 303.1 308.7 315.6 320.2 318.9	20.000 20.000	73.51 73.51 73.16 72.81 72.48 72.16 71.89 71.75 71.15 71.85 71.85 72.01 72.41 72.50 72.14 72.16 72.02 71.85 72.10 71.92 71.71 71.91 71.92 71.71 71.65 72.37 72.62 73.03 73.55 73.89 73.89 73.89
Ave. =	415.4 M	297.5 M		

Antenna Radiation Center AMSL =712.9 M NGDC 30 Arc Sec.

Geographic Coordinates:

N. Lat. 47 42 16 W. Lng. 94 39 03

Declaration:

I, Katherine A. Michler, have received a Bachelor of Science degree from the University of Northern Iowa, and;

That, I declare that I have received training as a technical consultant as a member of the staff of Doug Vernier Telecommunications Consultants, and;

That, I have apprenticed under Douglas Vernier for over three years, and;

That, he has been active in broadcast consulting for over 25 years, and;

That, his qualifications are a matter of record with the Federal Communications Commission, and;

That, I am an Associate Member (#20792) of the Society of Broadcast Engineers, Indianapolis, Indiana, and;

That, the consulting firm of Doug Vernier Telecommunications Consultants has been retained by Minnesota Public Radio, St. Paul, Minnesota, and as such has prepared the engineering showings appended hereto, and;

That, I have prepared these engineering showings, the technical information contained in same and the facts stated within are true to my knowledge, and;

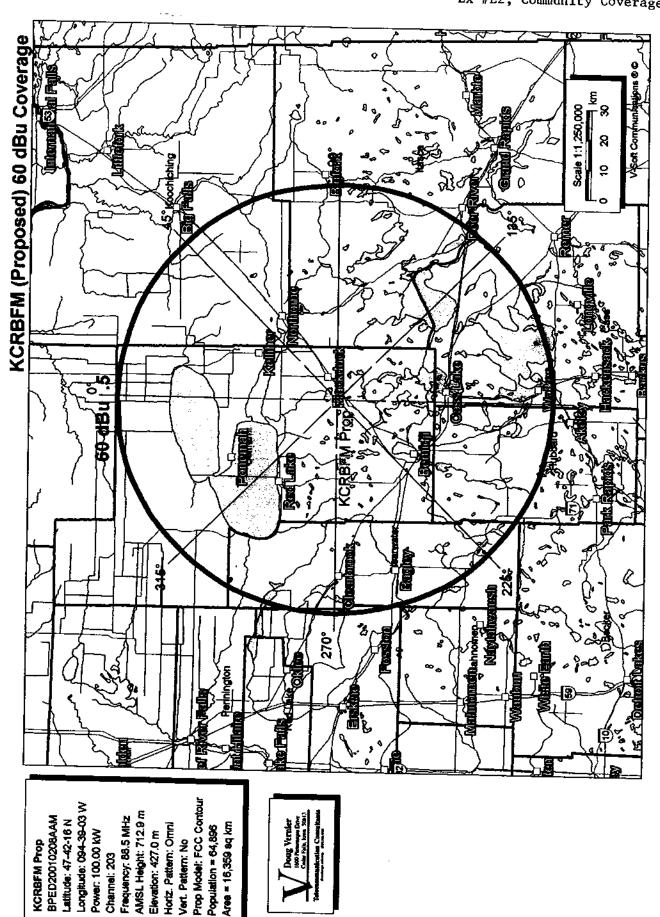
Katherine A. Michler

That, under penalty of perjury, I declare that the foregoing is correct.

Executed on November 8, 2001

Subscribed and sworn before me this 8th day of November, 2001.

Notary Public in and for the State of Iowa



132.1 Minnesota Public Radio

142.3 Forum Communications Compa

To Grd 8= 99,20

108.2

172

362

100.000

643

47 00 43 97 11 58

> Reference HAAT at 249.1°= 284.0 M, PWF= 100.0 kW, Pro. Dist. = 0.0 km, Int Dist. = 440.43 km

KCRBFM Site Change Minnesota Public Rádio CH# 203C1 - 88.5 MHz, Pwr= 100 kw, HAAT=297.0 M, COR= 713 M Average Protected F(50-50)= 72.15 km Ave. F(50-10) 40 dBu= 171.7 54 dBu= 104.8 80 dBu= 33.5 100 dBu= 10.1 REFERENCE 47 42 16 N 94 39 03 W DISPLAY DATES DATA 11-07-01 SEARCH 11-07-01 CH CALL TYPE AZI. DIST LAT. Pwr(kw) COR(M) PRO(km) *IN* *OUT* HAAT(M) INT(km) LICENSEE (Overlap in km) CITY STATE <--FILE # LNG. 203C1 KCRBFM Bemidji ---**-**--CP 98.3 10.05 47 41 29 94 31 06 CX 100.000 680 69.0 -230.25 MN 278.3 BPED20010208AAM -230.61 259 168.2 Minnesota Public Radio 203C1 KCRBFM Bemidji LIC CN 47 42 03 95.000 717 71.6 -230.25 271.8 BLED19940711KA MN -231.03 94 29 15 297 170.4 Minnesota Public Radio 202C2 990602 165.6 152.74 345.6 BPED19990602MG APP CN 46 22 23 94 09 16 50.000 415 31.4 Baxter 26.15 MN 16.55 44 54.4 Csn International *AP202 APP CX 48.4 130.17 228.4 BNPED20000119ACU 48 28 24 93 20 00 5.750 397 International Falls MN 19.2 6.11 28.3 Minnesota Public Radio > Reference HAAT at 48.4°= 297.2 M, PWr= 100.0 kW, 45 93 20 00 43 20.3 milliesoca rubiic i Pro. Dist. = 72.17 km, Int Dist. = 104.81 km 202C3 *981113 APP CN 174.2 143.24 46 25 21 5.000 597 37.0 16.08 Brainerd MN 354.2 BPED19981113MC 94 27 41 196 55.0 Minnesota Public Ra > Reference HAAT at 174.2°= 297.8 M, PWr= 100.0 kW, Pro. Dist. = 72.21 km, Int Dist. = 104.86 km 1.35 55.0 Minnesota Public Radio 202A 990528 168.9 147.24 348.9 BPED19990528MD APP CN 46 24 15 94 16 56 5.000 Brainerd 24.3 38.07 18.15 MN **7**9` 37.0 Rochester Community Radio 203A 971211 117.1 217.34 297.1 BPED19971211MC APP VN 46 47 21 92 06 51 Superior 1.000 390 17.2 87.52 WI 87 57.7 St Of Wi Educational Comm. 206C2 960328 APP 222.0 99.27 VN 47 02 18 50.000 555 42.0 Waubun 22.64 MN 42.0 BPED19960328ME 95 31 34 4.5 Niijii Broadcast Corporati 85 256C1 KLLZFM LÏÇ C 200.6 58.18 47 12 52 94 55 18 100,000 Walker 598 59.0 34.0R 20.6 BLH20010223AAP 24.2M MN 154 0.0 Bg Broadcasting, Inc. 206B CKSB9F OPE 33.2 124.86 CN 48 38 22 50,000 Fort Frances 0 63.9 46.91 46.78 ON 213.2 93 43 14 5.8 142 204C1 KF8N LIC 249.1 206.90 ΕN 47 00 48 97 11 37 100.000 556 69.5 33.11 Fargo 32.62 69.1 BLED19971222KD ND 101.6 Fargo Baptist Church 265 205A ALLO 332.4 169.15 49 02 50 95 43 29 6.000 0 38.7 Cat Hills 94.25 MR 83.51 152.4 100 2.8 201A ALLO 332.4 169.15 49 02 50 95 43 29 6,000 0 Cat Hills 38.7 94.25 83,51 MB 152.4 2.8 100 204A 970331 APP 121.9 205.88 46 42 22 92 21 44 372 0.450 8.3 122.04 92.83 Esko 301.9 8PED19970331MA MN 29 11.7 Lincoln High School Esko, 203C2 KNCM LIC CN 200.6 300.48 20.6 BLED19970131KC 45 10 03 96 00 02 479 34.000 96.23

HN 249.1 207.37

69.1 BMLCT624

LI

ND

Appleton

Fargo

06Z2C *WDAYTV

^{* =} ERP and HAAT on direct line to and from reference station.

HOW TO READ THE FM COMPUTER PRINT-OUT

The computer printout should be self-explanatory for the most part. The parameters of the station being checked, (reference station) are printed in the heading. The 60 dBu protected contour is predicted from the Commission's F(50-50) table, while the 40, 54, 80 and 100 dBu contours are interference contours derived from the Commission's F(50-10) table. Contour distances are in kilometers and are predicted using spline interpolation from data points identical to those published in Report No. RS 76-01 by Gary C. Kalagian. Critical contour distances are determined using the Commission's TVFMINT FORTRAN subroutine. When interference contour distances are less than 16 kilometers the F(50-50) tables are used. If signal contour distances are less than 1.6 km the free-space equation is used.

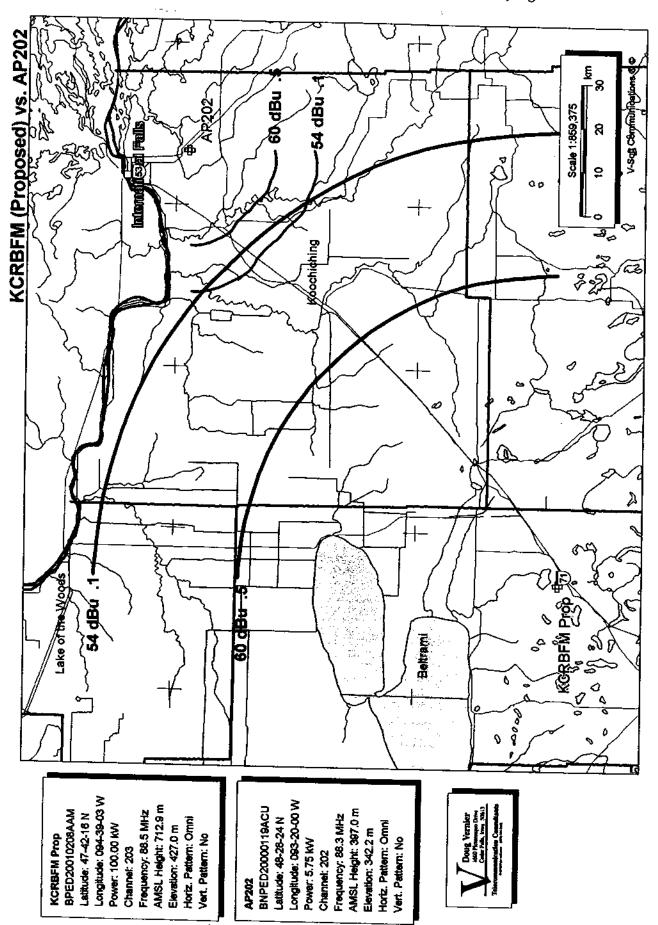
The column listed "* IN *" is the sum of the reference station's 60 dBu protected contour and the data file station's interference contour subtracted from the distance between the stations. (All distances are derived by the method detailed in Sec. 73.208 of the Rules and Regulations as amended in Docket 80-90.) Therefore, the column is a measure of incoming interference. Negative distances in this column indicate the presence of interference. Listed antenna heights are the average heights of eight standard radials as found in the Commission's records unless otherwise noted, in which case the specific antenna heights along the azimuths between the reference station and the database station are used and visa versa. The column labeled "* OUT *" shows the distance of kilometers of overlap or clearance between the reference station's interference contour and the database station's protected contour. Negative distance figures in this column indicate outgoing interference.

Under the "AZIMUTH" column, the first row of numbers indicate the bearings from true north of the data base stations in relationship with the reference station, while the numbers in the second row indicate the reverse bearings from the database station to the reference station.

The columns labeled "INT" and "PRO" hold the distance in kilometers of the appropriate interference contour and the protected contour of a data base station.

For I.F. relationships the "IN" and "OUT" columns change their significance. The letter "R" stands for the minimum required distance in kilometers, while the letter "M" in the next column follows the available clear space separation in kilometers. Minimum separation distances when displayed are taken from Sec 73.207 of the rules as amended. Canadian and Mexican separation distances, U/D ratios and protected contour values are from the US/Mexican Working Agreement and the US/Canada Working Agreement".

The first three letters of the "TYPE" column identify the current FCC status of the stations. The fourth letter will be a "D" or "Z" (Sec. 73.215) if the facility is directional. The fifth letter will be an E, H or V depending on the type of antenna polarization. The sixth letter will be a "Y" if the antenna uses beam tilt.



'V-Soft Communications 11-07-2001 30 Sec. Terrain Data

Ex #E3, Pg #4

AP202 BNPED20000119ACU Channel = 202A Max ERP = 5.75 kW RCAMSL = 397 M N. Lat = 48 28 24 W. Lng = 93 20 00

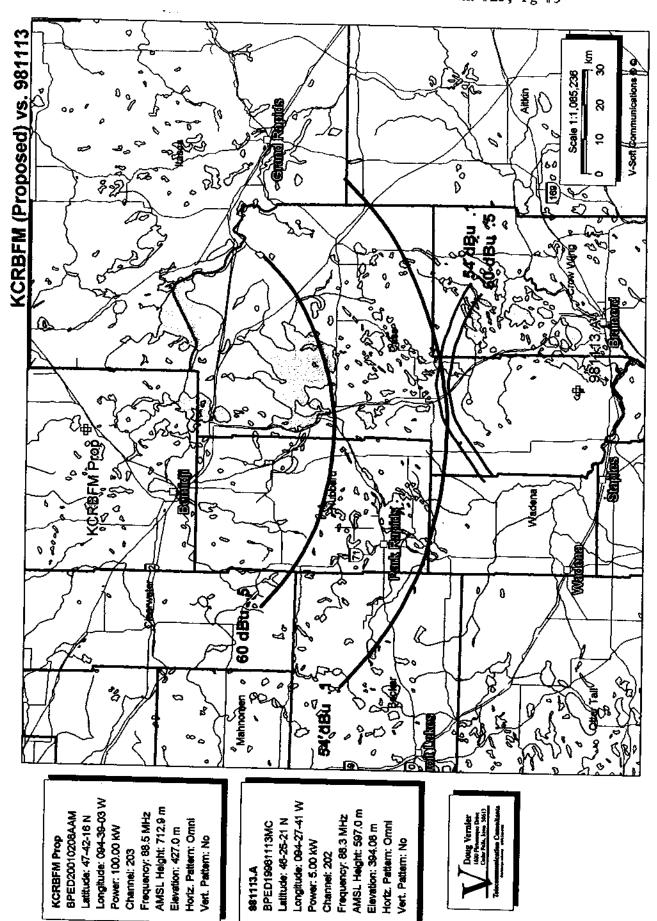
> Protected 60 dBu

KCRBFMPr

Channel = 203C1 Max ERP = 100 kW RCAMSL = 712.9 M N. Lat = 474216 W. Lng = 943903

Interfering 54 dBu

Azimuth (degrees	· -	HAAT (m)	Dist (km)	Azimuth		HAAT (m)	Dist (km)	Actual (dBu)
212.0 213.0	005.7500	0047.1	019.7	051.4	100.0000	0297.0	111.5	52.1
213.0	005.7500	0046.8	019.7	051.3	100.0000	0297.0	111.5	52.1
214.0	005.7500	0046.5	019.6	051.1	100.0000	0297.0	111.4	52.1
215.0	005.7500	0046.1	019.5	050.9	100.0000	0297.0	111.4	52.1
217.0	005.7500	0045.7	019.4	050.7	100.0000	0297.0	111.4	52.1
217.0	005.7500	0045.3	019.3	050.5	100.0000	0297.0	111.4	52.1
218.0	005.7500	0045.1	019.3	050.4	100.0000	0297.1	111.4	52.1
	005.7500	0045.1	019.3	050.2	100.0000	0297.1	111.3	52.1
220.0	005.7500	0045.1	019.3	050.0	100.0000	0297.1	111.2	52.2
221.0	005.7500	0045.2	019.3	049.9	100.0000	0297.1	111.2	52.2
222.0	005.7500	0045.3	019.3	049.7	100.0000	0297.1	111.1	52.2
223.0	005.7500	0045.4	019.4	049.5	100.0000	0297.1	111.0	52.2
224.0	005.7500	0045.5	019.4	049.3	100.0000	0297.1	111.0	52.2
225.0	005.7500	0045.5	019.4	049.2	100.0000	0297.1	110.9	52.2
226.0	005.7500	0045.3	019.3	049.0	100.0000	0297.1	110.9	52.2
227.0	005.7500	0045.1	019.3	048.8	100.0000	0297.1	111.0	52.2
228.0	005.7500	0044.9	019.2	048.6	100.0000	0297.1	111.0	52.2
229.0	005.7500	0045.0	019.3	048.5	100.0000	0297.1	111.0	52.2
230.0	005.7500	0045.2	019.3	048.3	100.0000	0297.1	111.0	52.2
231.0	005.7500	0045.4	019.3	048.1	100.0000	0297.1	110.9	52.2
232.0	005.7500	0045.5	019.4	047.9	100.0000	0297.1	110.9	52.3
233.0	005.7500	0045.7	019.4	047.8	100.0000	0297.1	110.9	52.3
234.0	005.7500	0045.9	019.5	047.6	100.0000	0297.1	110.9	52.3
235.0	005.7500	0046.2	019.5	047.4	100.0000	0297.4	110.8	52.3
236.0	005.7500	0046.5	019.6	047.2	100.0000	0297.4	110.8	52.3
237.0	005.7500	0047.0	019.7	047.1	100.0000	0297.4	110.8	52.3
238.0	005.7500	0047.6	019.9	046.9	100.0000	0297.4	110.7	52.3
239.0	005.7500	0048.5	020.1	046.7	100.0000	0297.4	110.5	52.4
240.0	005.7500	0049.4	020.2	046.5	100.0000	0297.8	110.4	52.4
241.0	005.7500	0050.3	020.4	046.3	100.0000	0297.8	110.3	52.4
242.0	005.7500	0051.1	020.6	046.1	100.0000	0297.8	110.3	52.4
243.0	005.7500	0051.8	020.7	045.9	100.0000	0297.8	110.3	52.5
244.0	005.7500	0052.3	020.8	045.7	100.0000	0297.8	110.2	52.5
245.0	005.7500	0052.6	020.9		100.0000	0298.0	110.2	52.4
246.0	005.7500	0052.9	021.0		100.0000	0298.0	110.3	52.4
			•				110.4	J4.7



V-Soft Communications 11-07-2001 30 Sec. Terrain Data Ex #E3, Pg #6

981113 BPED19981113MC Channel = 202C3 Max ERP = 5 kW

RCAMSL = 597 MN. Lat = 46 25 21W. Lng = 94 27 41

> Protected 60 dBu

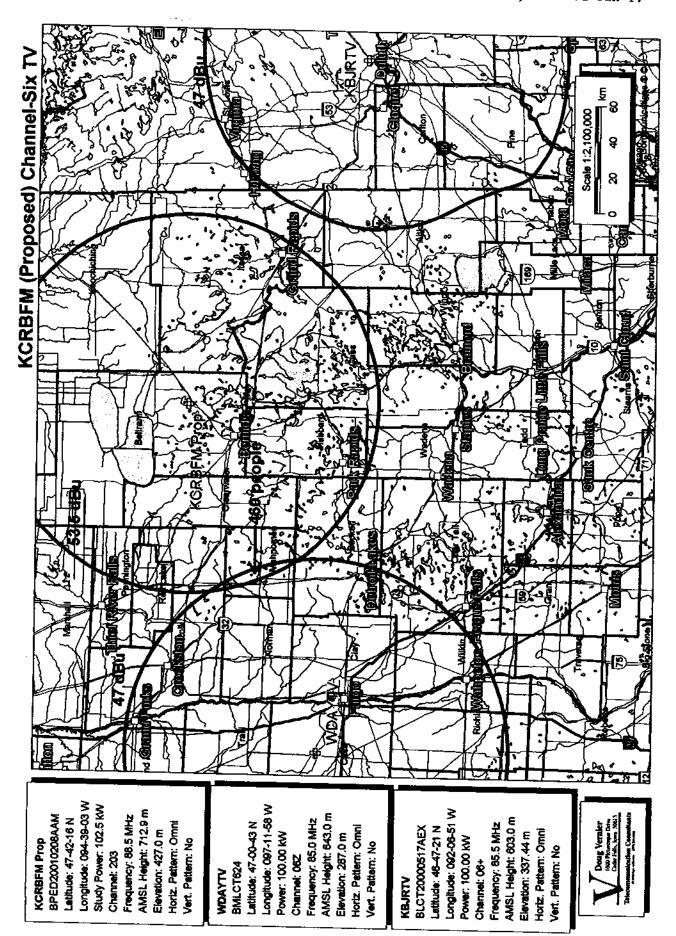
KCRBFM BLED19940711KA

Channel = 203C1 Max ERP = 100 kW RCAMSL = 712.9 M N. Lat = 474216 W. Lng = 943903

Interfering 54 dBu

Azimuth		HAAT (m)	Dist (km)	Azimuth		HAAT (m)	Dist (km)	Actual (dBu)
		=	(km) 035.3 035.5 035.7 035.8 035.9 036.0 036.2 036.3 036.5 036.6 036.7 036.8 036.8 036.8 036.9 037.0 037.1 037.2 037.3 037.4 037.5	(degrees 179.7 179.4 179.2 178.9 178.6 178.3 178.0 177.7 177.4 177.0 176.7 176.4 176.0 175.7 175.3 175.3 175.3 175.0 174.7 174.3 174.0 173.6 173.2 172.9 172.5) (kW)	(m) 0295.4 0296.2 0296.2 0296.2 0297.2 0297.2 0297.2 0298.3 0298.3 0298.3 0298.9 0298.9 0298.4 0298.4 0298.4 0298.4 0298.4 0298.4 0298.8 0296.8		
001.0 002.0 003.0 004.0 005.0 006.0 007.0 008.0 009.0 010.0	005.0000 005.0000 005.0000 005.0000 005.0000 005.0000 005.0000 005.0000 005.0000	0203.9 0203.7 0202.8 0202.2 0201.5 0201.1 0200.6 0200.2 0199.6 0199.2	037.6 037.6 037.6 037.5 037.5 037.4 037.4 037.4 037.3 037.3	168.8	100.0000 100.0000 100.0000 100.0000 100.0000 100.0000 100.0000 100.0000 100.0000 100.0000 100.0000	0296.1 0296.4 0296.4 0296.4 0297.1 0297.1 0298.1 0298.1 0298.1 0298.5	105.9 105.9 106.1 106.3 106.5 106.7 106.9 107.1 107.3 107.6 107.8	53.6 53.6 53.5 53.5 53.4 53.4 53.3 53.3 53.3

and the second



		Ci	namer = 203		
-	Azimuth Deg.T.	Ave. Elev. 3 to 16 km Meters AMSL	Effective Antenna Height Meters AAT	ERP (d8k)	F(50-10) Distance to 53.5 dBu Contour km
-	0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350	397.9 402.6 405.6 407.2 411.6 415.8 419.1 420.9 428.2 426.9 421.6 411.4 415.8 417.6 411.4 415.8 417.5 418.8 421.4 418.9 423.3 429.7 428.2 428.2 429.7 42	315.0 310.3 307.3 305.7 301.3 297.1 293.8 292.0 284.7 286.0 290.0 293.1 293.2 295.3 300.3 301.5 296.8 297.1 295.4 293.3 296.4 293.3 296.4 294.1 291.5 294.0 289.6 283.3 284.7 287.8 299.8 303.1 308.7 315.6 320.2	20.107 20.107	108.68 108.14 107.83 107.66 107.24 106.84 106.51 106.34 105.62 105.76 106.44 106.46 107.15 107.26 106.81 106.81 106.84 106.67 106.55 106.76 106.76 106.55 106.55 106.29 106.53
	Ave. =	394.0 415.4 M	318.9 297.5 M	20.107	109.15

Antenna Radiation Center AMSL =712.9 M NGDC 30 Arc Sec.

Geographic Coordinates:

N. Lat. 47 42 16 W. Lng. 94 39 03

Doug Vernier Telecommunications Consultants WDAYTV, Forum Communications Company , BMLCT624 ERP = 100 kW Channel = 06Z

Ex #E4, Pg #3

	-	a 002		
Azimuth Deg.T.	Ave. Elev. 3 to 16 km Meters AMSL	Effective Antenna Height Meters AAT	ERP 4 (dBk)	F(50-50) Distance to 7 dBu Contour km
0 10	296.0 292.2	347.0	20.000	107.07
20	290.4	350.8 352.6	20.000	107.35
30	289.0	354.0	20.000	107.48
40	287.9	355.1	20.000 20.000	107.58
50	286.1	356.9	20.000	107.66
<u>60</u>	283.0	360.0	20.000	107.80 108.03
70	281.0	362.0	20.000	108.18
80	279.5	363.5	20.000	108.30
90	278.6	364.4	20.000	108.37
100 110	278.1	364.9	20.000	108.40
120	277.5	365.5	20.000	108.45
130	277.3	365.7	20.000	108.47
140	277.4 277.5	365.6	20.000	108.46
150	277.3 278.9	365.5	20.000	108.46
160	279.6	364.1	20.000	108.35
170	281.7	363.4 361.3	20.000	108.29
180	282.3	360.7	20.000	108.13
190	282.5	360.7	20.000	108.08
200	287.0	356.0	20.000	108.07
210	287.6	355.4	20.000 20.000	107.73
220	289.0	354.0	20.000	107.68
230	292.2	350.8	20.000	107.58
240	295.3	347.7	20.000	107.35 107.12
250	301.2	341.8	20.000	106.70
260 270	305.1	337.9	20.000	106.42
270 280	306.4	336.6	20.000	106.33
290	306.0	337.0	20.000	106.36
300	306.1	336.9	20.000	106.35
310	304.8 305.1	338.2	20.000	106.44
320	305.3	337.9	20.000	106.42
330	304.6	337.7	20.000	106.41
340	302.1	338.4 340.9	20.000	106.45
350	298.9	340.9 344.1	20.000	106.63
			20.000	106.86
Ave. =	290.4 M	352.6 M		

Antenna Radiation Center AMSL =643 M NGDC 30 Arc Sec.

Geographic Coordinates:

N. Lat. 47 00 43 W. Lng. 97 11 58

Doug Vernier Telecommunications Consultants
KBJRTV, Kbjr License, Inc. , BLCT20000517AEXx #E4, Pg #4
ERP = 100 kW
Channel = 06+

Azimuth Deg.T.	Ave. Elev. 3 to 16 km Meters AMSL	Effective Antenna Height Meters AAT	ERP 4 (dBk)	F(50-50) Distance to 7 dBu Contour km
0 10	419.4	183.6	20.000	92.43
20	410.9 390.8	192.1	20.000	93.30
3ŏ	372.5	212.2	20.000	95.30
40	323.9	230.5	20.000	97.08
50	254.2	279.1 348.8	20.000	101.72 107.20
60	189.8	413.2	20.000	107.20
70	183.5	419.5	20.000 20.000	112.55
80	183.1	419.9	20.000	113.10 113.14
90	183.0	420.0	20.000	113.14
100	183.0	420.0	20.000	113.15
110 120	183.0	420.0	20.000	113.15
130	183.0	420.0	20.000	113.15
140	183.0	420.0	20.000	113.15
150	183.1	419.9	20.000	113.14
160 160	186.5 191.4	416.5	20.000	112.84
17ŏ	194.0	411.6	20.000	112.40
180	195.1	409.0 407.9	20.000	112.17
190	195.7	407.3	20.000	112.07
200	190.1	412.9	20.000	112.02
210	189.3	413.7	20.000 20.000	112.52
220	237.6	365.4	20.000	112.58
230	348.2	254.8	20.000	108.45 99.43
240	384.6	218.4	20.000	95.90
250	389.2	213.8	20.000	95.45
260 270	398.4	204.6	20.000	94.55
280	402.4	200.6	20.000	94.15
290	415.6	187.4	20.000	92.82
300	429.4	173.6	20.000	91.37
310	431.0 433.5	172.0	20.000	91.19
320	433.3 427.1	169.5	20.000	90.92
330	423.7	175.9 179.3	20.000	91.61
340	423.2	179.3 179.8	20.000	91.98
350	425.7	177.3	20.000 20.000	92.03
			20.000	91.76
Ave. =	298.3 M	304.7 M		

Antenna Radiation Center AMSL =603 M NGDC 30 Arc Sec.

Geographic Coordinates:

N. Lat. 46 47 21 W. Lng. 92 06 51

EXHIBIT # E5

R.F. RADIATION COMPLIANCE STATEMENT

KCRBFM Channel 203 – 100 kW H & V Bemidji, Minnesota

November 2001

The applicant's proposed power is 100 kW, however another application is being filed to use the same antenna in diplex that will raise the total ERP to 130 kW. The proposed antenna will have a center of radiation of 292.6 meters above ground. Using the formulas expressed in the OET Bulletin, No. 65, August 1997, "Evaluating Compliance with F.C.C. Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields", published by the Federal Communication Commission's Office of Science and Engineering, a total, head-height non-ionization radiation level of 102.86 microwatts per square centimeter was calculated. The proposed tower location will be within a controlled area having a fence and locked gate. The calculated value amounts to only 10.29 percent of the maximum for a controlled area. (1000 microwatts per centimeter maximum.) There will be no other sources of RF radiation on the proposed tower that will significantly add to this calculation.

The applicant will protect workers on the tower by either reducing ERP or terminating transmission. An agreement is in effect with the other users of this tower at this location to reduce power or to terminate operations to protect workers from receiving in excess of the Commission's standard.

Consequently, it appears that the proposed FM station will be in full compliance with the Commission's rules and regulations with regard to human exposure to radiofrequency electromagnetic fields.