

Federal Communications Commission Washington, D.C. 20554 <p style="text-align: center;">FCC 340</p>	Approved by OMB 3060-0034(March 2001)	FOR FCC USE ONLY
APPLICATION FOR CONSTRUCTION PERMIT FOR RESERVED CHANNEL NONCOMMERCIAL EDUCATIONAL BROADCAST STATION		FOR COMMISSION USE ONLY FILE NO. BMPED - 20011114ABQ
Read INSTRUCTIONS Before Filling Out Form		

Section I - General Information

1. Legal Name of the Licensee/Permittee
 MINNESOTA PUBLIC RADIO

Mailing Address
 45 EAST 7TH ST.

City ST. PAUL	State or Country (if foreign address) MN	ZIP Code 55101 -
Telephone Number (include area code) 6512901259	E-Mail Address (if available) MGRAMLING@MPR.ORG	
	Call Sign KCRB-FM	Facility Identifier 42970

2. Contact Representative (if other than licensee/Permittee)
 TODD STANSBURY

Firm or Company Name
 WILEY REIN & FIELDING

Telephone Number (include area code)
 2027194948

E-Mail Address (if available)
 TSTANSBURY@WRF.COM

3. Is this application being filed in response to a window?
 If Yes, specify closing date and/or window number: Yes No

4. **Application Purpose**

New station
 Major Change in licensed facility
 Minor Change in licensed facility
 Major Modification of construction permit
 Minor Modification of construction permit
 Major Amendment to pending application
 Minor Amendment to pending application

(a) File number of original construction permit: -

(b) Service Type: FM TV DTV

(c) Community of License:
 City: BEMIDJI State: MN

(d) Facility Type: Main Auxiliary

If an amendment, submit as an Exhibit a listing by Section and Question Number the portions of the pending application that are being revised. [Exhibit 1]

NOTE: The failure to include an explanatory providing full particulars in connection with a "No" response may result in dismissal of the application. See Instructions, paragraph L for additional information regarding completion of explanatory exhibits.

SECTION II - Legal and Financial

1.	<p>Certification. Applicant certifies that it has answered each question in this application based on its review of the application instructions and worksheets. Applicant further certifies that where it has made an affirmative certification below, this certification constitutes its representation that the application satisfies each of the pertinent standards and criteria set forth in the application instructions and worksheets.</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No</p>
2.	<p>Eligibility. Each application must answer "Yes" to one and "No" to two of the three following certifications. An applicant should not submit an explanatory exhibit in connection with these Question 2 "No" responses.</p> <p>The applicant certifies that it is:</p> <p>a. a nonprofit educational institution; or</p> <p>b. a governmental entity other than a school; or</p> <p>c. a nonprofit educational organization, other than described in a. or b.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p> <p><input type="radio"/> Yes <input type="radio"/> No</p> <p><input type="radio"/> Yes <input type="radio"/> No</p>
3.	<p>For applicants checking "Yes" to question 2(c) and applying for a new noncommercial educational television station only, the applicant certifies that the applicant's officers, directors and members of its governing board are broadly representative of the educational, cultural, and civic segments of the principal community to be served.</p>	<p><input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A</p>
4.	<p>a. The applicant certifies that the Commission has previously granted a broadcast application identified here by file number that found this applicant qualified as a noncommercial educational entity with a qualifying educational program, and that the applicant will use the proposed station to advance a program similar to that the Commission has found qualifying in applicant's previous application.</p> <p>b. Applicants who answered "No" to Question 4(a), must include an exhibit that describes the applicant's educational objective and how the proposed station will be used to advance an educational program that will further that objective according to 47 C.F.R. Section 73.503 (for radio applicants) and 47 C.F.R. Section 73.621 (for television applicants).</p>	<p><input type="radio"/> Yes <input type="radio"/> No FCC FileNumber</p> <p>[Exhibit 2]</p>
5.	<p>The applicant certifies that its governing documents (e.g., articles of incorporation, by-laws, charter, enabling statute, and/or other pertinent organizational document) permit the applicant to advance an educational program and that there is no provision in any of those documents that would restrict the applicant from advancing an educational program or complying with any Commission rule, policy, or provision of the Communications Act of 1934, as amended.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>
6.	<p>a. Parties to the Application. List separately each party to the application including, as applicable, the applicant, its officers, directors, five percent or greater stockholders, non-insulated partners, members, and all other persons and entities with attributable interests. If another entity hold an attributable interest in the applicant, list separately, as applicable, its officers, directors, five percent or greater stockholders, non-insulated partners, and board members. Create a separate row for each individual or entity. Attach additional pages if necessary.</p> <p>[Enter Parties/Owners Information]</p> <hr/> <hr/> <p>b. Applicant certifies that equity and financial interests not set forth above are non-attributable pursuant to 47 C.F.R. Section 73.3555 and that there are no agreements or understandings with any non-party that would give influence over the applicant's programming, personnel, or finances to that non-party.</p>	<p><input type="radio"/> Yes <input type="radio"/> No [Exhibit 3]</p>
7.	<p>Other Authorizations. List call signs, locations, and facility identifiers of all other broadcast stations in which applicant or any party to the application has an attributable interest pursuant to the notes to 47 C.F.R. Section 73.3555.</p>	<p><input type="checkbox"/> N/A [Exhibit 4]</p>
8.	<p>Character Issues. Applicant certifies that neither applicant nor any party to the application has or has had any interest in or connection with:</p> <p>a. any broadcast application in any proceeding where character issues were left unresolved or were resolved adversely against the applicant or party to the application; or</p> <p>b. any pending broadcast application in which character issues have been raised.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p> <p>See Explanation in [Exhibit 5]</p>
9.	<p>Adverse Findings. Applicant certifies that, with respect to the applicant, any party to the</p>	

	<p>application, and any non-party equity owner in the applicant, no adverse finding has been made, nor has an adverse final action been taken by any court or administrative body in a civil or criminal proceeding brought under the provisions of any law related to any of the following: any felony; mass media-related antitrust or unfair competition; fraudulent statements to another government unit; or discrimination.</p> <p>If the answer is "No," attach as an Exhibit a full disclosure concerning the persons and matters involved, including an identification of the the court or administrative body and the proceeding (by dates and file numbers), and a description of the disposition of the matter. Where the requisite information has been earlier disclosed in connection with another application or as required by 47 C.F.R. Section 1.65, the applicant need only provide: (i) an identification of that previous submission by reference to the file number in the case of an application, the call letters of the station regarding which the application or Section 1.65 information was filed, and the date of filing; and (ii) the disposition of the previously reported matter.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p> <p>See Explanation in [Exhibit 6]</p>
10.	<p>Alien Ownership and Control. Applicant certifies that it complies with the provisions of Section 310 of the Communications Act of 1934, as amended, relating to interests of aliens and foreign governments.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p> <p>See Explanation in [Exhibit 7]</p>
11.	<p>Program Service Certification. Applicant certifies that it is cognizant of and will comply with its obligations as a commission licensee to present a program service responsive to the issues of public concern facing the station's community of license and service area.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>
12.	<p>Local Public Notice. Applicant certifies compliance with the public notice requirements of 47 C.F.R. Section 73.3580.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>
13.	<p>Anti-Drug Abuse Act Certification. Applicant certifies that neither applicant nor any party to the application is subject to denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862.</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No</p>
14.	<p>Equal Employment Opportunity (EEO). If the applicant proposes to employ five or more full-time employees, applicant certifies that it is filing simultaneously with this application a Model EEO Program Report on FCC Form 396-A.</p>	<p><input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A</p>
<p>QUESTIONS 15, 16 AND 17 APPLY ONLY TO APPLICANTS FOR NEW STATIONS. OTHER APPLICANTS CAN PROCEED TO QUESTION 18.</p>		
15.	<p>Financial. The applicant certifies that sufficient net liquid assets are on hand or that sufficient funds are available from committed sources to construct and operate the requested facilities for three months without revenue.</p> <p>If "No" to 15., answer question 16. and 17.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p> <p>See Explanation in [Exhibit 8]</p>
16.	<p>Is this application contingent upon receipt of a grant from the National Telecommunications and Information Administration?</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>
17.	<p>Is this application contingent upon receipt of a grant from a charitable organization, the approval of the budget of a school or university, or an appropriation from a state, county, municipality or other political subdivision?</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>
<p>NOTE: If Yes to 16. or 17., the application cannot be granted unconditionally until all of the necessary funds are committed or appropriated. In the case of grants from the National Telecommunications and Information Administration, no further action on the applicant's part is required. If the applicant relies on funds from a source specified in Question 17., the applicant must advise the Commission when the funds are committed or appropriated. This should be accomplished by letter amendment to the application. Applicants should take note that the Commission's construction period is not considered "tolled" by funding difficulties and that any permit granted conditionally on funding will expire if the station is not constructed for any reason, including lack of funding.</p>		
<p>QUESTIONS 18 AND 19 DO NOT APPLY TO APPLICATIONS FOR NEW STATIONS. APPLICANTS FOR NEW FM STATIONS CAN PROCEED TO SECTION III. APPLICANTS FOR NEW TV STATIONS CAN PROCEED TO SECTION IV.</p>		
<p>Holding Period.</p>		
18.	<p>Applicant certifies that this application does not propose a modification to an authorization that was awarded on the basis of a preference for fair distribution of service pursuant to 47 U.S.C. Section 307(b).</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No</p>

<p>If "No," answer a. and b. below. If applicant answers "No" to 18. above and cannot answer "Yes" to either a. or b. below, the application is unacceptable.</p>	
<p>a. Applicant certifies that the proposed modification will not downgrade service to the area on which the Section 307(b) preference was based.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>
<p>b. Applicant certifies that although it proposes to downgrade service to the area on which the Section 307(b) preference was based, applicant has provided full service to that area for a period of four years of on-air operations.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>
<p>19. Applicant certifies that this application does not propose a modification to an authorized station that received a credit for superior technical parameters under the point system selection method in 47 C.F.R. Section 73.7003.</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No</p>
<p>If "No," applicant must be able to answer "Yes" to a. below or provide an exhibit that makes a compelling showing that the downgrade would be in the public interest.</p>	
<p>a. Applicant certifies that the population and area within the proposed service contour (60 dBu (FM) or grade B (TV)) are greater than or equivalent to those authorized.</p>	<p><input type="radio"/> Yes <input type="radio"/> No [Exhibit 9]</p>

Section III

Fair Distribution of Service Pursuant to 47 U.S.C. Section 307(b) (New and Major Changes to FM Radio Only) (Other applicants can proceed to Section IV).

<p>1. Applicant certifies that the proposed station will provide a first noncommercial educational aural service to (a) at least 10 percent of the people residing within the station's 60 dBu (1mV/m) service contour and (b) to a minimum of 2,000 people. Applicants answering "Yes" must provide an Exhibit.</p>	<p><input type="radio"/> Yes <input type="radio"/> No [Exhibit 10]</p>
<p>2. Applicant certifies that the proposed station will provide a second noncommercial educational aural service to (a) at least 10 percent of the people residing within the station's 60 dBu (1mV/m) service contour and (b) to a minimum of 2,000 people. Applicants answering "Yes" must provide an Exhibit.</p>	<p><input type="radio"/> Yes <input type="radio"/> No [Exhibit 11]</p>

Section IV Point System Factors - New and Major Change Applications Only (used to select among mutually exclusive radio and television applications for new stations and major modifications) **NOTE:** Applicants will not receive any additional points for amendments made after the close of the application filing window.

<p>1. Established Local Applicant: Applicant certifies that for at least the 24 months immediately prior to application, and continuing through the present, it qualifies as a local applicant pursuant to 47 C.F.R. Section 73.7000, that its governing documents require that such localism be maintained, and that it has placed documentation of its qualifications as an established local applicant in a local public inspection file and has submitted to the Commission copies of the documentation.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>
<p>2. Diversity of Ownership: (a) Applicant certifies that the principal community (city grade) contour of the proposed station does not overlap the principal community contour of any other authorized station (comparing radio and television to television, including non-fill-in translator stations other than those identified in 2(b) below) in which any party to the application has an attributable interest as defined in 47 C.F.R. Section 73.3555, that its governing documents require that such diversity be maintained, and that it has placed documentation of its diversity qualification in a local public inspection file and has submitted to the Commission copies of the documentation.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>
<p>(b) Is the application's certification to 2(a) based on its exclusion of translator station(s) that will be replaced with a full service station pursuant to the authorization requested here?</p> <p>If Yes, applicant must include an exhibit identifying the translator station authorization for which it will request cancellation upon commencement of operation of the proposed full service station (i.e., upon its filing of a license application and receipt of program test authority).</p>	<p><input type="radio"/> Yes <input type="radio"/> No [Exhibit 12]</p>
<p>3. State-wide Network: Applicant certifies that (a) it has NOT claimed a credit for diversity of ownership above; (b) it is one of the three specific types of organizations described in 47 C.F.R. Section 73.7003(b) (3); and (c) it has placed documentation of its qualifications in a local public inspection file and has submitted to the Commission copies of the documentation.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>
<p>4. Technical Parameters: Applicant certifies that the numbers in the boxes below accurately reflect the new</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>

area and population that its proposal would serve with a 60 dBu (FM) or Grade B (TV) signal measured in accordance with the standard predicted contours in 47 C.F.R. Section 73.713(c) (FM) and 73.683(TV) and that it has documented the basis for its calculations in the local public inspection file and has submitted copies to the Commission. Major modification applicants should include the area of proposed increase only (exclude any area already within the station's existing service area). (Points, if any, will be determined by FCC)	
New area served in square kilometers (excluding areas of water):	
Population served based on the most recent census block data from the United States Bureau of Census using the centroid method:	

SECTION V - Tie Breakers - New and Major Change Applications Only (used to choose among competing radio and television applications receiving the same number of points in Section IV)

1.	Existing Authorizations. By placing a number in the box, the applicant certifies that it and other parties to the application have, as of the date of filing and pursuant to 47 C.F.R. Section 73.3555, attributable interests in the stated number of relevant broadcast station authorizations. Radio applicants should count all attributable full service radio stations, AM and FM, commercial and noncommercial, and FM translator stations other than fill-in stations or those identified in IV (2)(b) above. TV applicants should count all attributable full service TV stations, commercial and noncommercial and TV translator stations other than fill-in stations or those identified in IV(2)(b) above. (number of commercial and non-commercial licenses and construction permits)
2.	Pending Applications. By placing a number in the box, the applicant certifies that it and other parties to the application have, as of the date of filing and pursuant to 47 C.F.R. Section 73.3555, attributable interests in the stated number of pending applications for new or major changes to relevant broadcast stations. Radio applicants should count all attributable full service radio stations, AM and FM, commercial and noncommercial, and FM translator stations other than fill-in stations or those identified in IV(2)(b) above. TV applicants should count all attributable full service TV stations, commercial and noncommercial, and TV translator stations other than fill-in stations or those identified in IV(2)(b) above. (number of pending commercial and non-commercial applications)

Section VI -- Certification

I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith. I acknowledge that all certifications and attached Exhibits are considered material representations. I hereby waive any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and request an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended.)

Typed or Printed Name of Person Signing THOMAS J KIGIN	Typed or Printed Title of Person Signing EXECUTIVE VICE PRESIDENT
Signature	Date 6/24/2002

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 KATE MICHLER	Relationship to Applicant (e.g., Consulting Engineer)	
Signature	Date 6/12/2002	
Mailing Address 1600 PICTURESQUE DRIVE		
City CEDAR FALLS	State or Country (if foreign address) IA	Zip Code 50613-
Telephone Number (include area code) 3192668402	E-Mail Address (if available) KMICHLER@V-SOFT.COM	

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).

Section VII - FM Engineering on Channels 200-220

TECHNICAL SPECIFICATIONS

Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX

1. Channel Number: 203

2. Class (select one):
 D A B1 B C3 C2 C1 C

3. Antenna Location Coordinates: (NAD 27)
 Latitude:
 Degrees 47 Minutes 42 Seconds 21 North South
 Longitude:
 Degrees 94 Minutes 29 Seconds 9 West East

4. Antenna Structure Registration Number:
 Not Applicable Notification filed with FAA

5. Antenna Location Site Elevation Above Mean Sea Level: 437 meters

6. Overall Tower Height Above Ground Level: 305 meters

7. Height of Radiation Center Above Ground Level: 283 meters(H) 283 meters(V)

8. Height of Radiation Center Above Average Terrain: 301 meters(H) 301 meters(V)

9. Effective Radiated Power: 83 kW(H) 83 kW(V)

10. Maximum Effective Radiated Power: Not Applicable kW(H) kW(V)
 (Beam-Tilt Antenna ONLY)

11. Directional Antenna Relative Field Values: Not applicable (Nondirectional)
 Rotation (Degrees): No Rotation

Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value
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	
Additional Azimuths											

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 Studio Location.** The proposed main studio location complies with 47 C.F.R. Section 73.1125. Yes No
 See Explanation in [Exhibit 13]

13. **Interference.** The proposed facility complies with all of the following applicable rule sections. Yes No
 Check all that apply:

		See Explanation in [Exhibit 14]
	Contour Overlap Requirements.	
	a. <input checked="" type="checkbox"/> 47 C.F.R. Section 73.509 Exhibit Required.	[Exhibit 15]
	Spacing Requirements.	
	b. <input type="checkbox"/> 47 C.F.R. Section 73.207 with respect to station(s)	
	Grandfathered Short-Spaced.	
	c. <input type="checkbox"/> 47 C.F.R. Section 73.213(a) with respect to station(s) Exhibit Required.	[Exhibit 16]
	Contour Protection.	
	d. <input type="checkbox"/> 47 C.F.R. Section 73.215(a) with respect to station(s) Exhibit Required.	[Exhibit 17]
	Television Channel 6 Protection.	
	e. <input checked="" type="checkbox"/> 47 C.F.R. Section 73.525 with respect to station(s) Exhibit Required.	[Exhibit 18]
14.	Reserved Channels Above 220.	
	a. Allotment. The proposed facility complies with the allotment requirements of 47 C.F.R. Section 73.203.	<input type="checkbox"/> Yes <input type="checkbox"/> No See Explanation in [Exhibit 19]
	b. Community Coverage. The proposed facility complies with 47 C.F.R. Section 73.315.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No See Explanation in [Exhibit 20]
15.	International Borders. The proposed antenna location is not within 320 kilometers of the common border between the United States and Canada or Mexico.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Canada <input type="checkbox"/> Mexico
	If "No," specify the country and provide an exhibit of compliance with all provisions of the relevant International Agreement.	[Exhibit 21]
16.	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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No See Explanation in [Exhibit 22]
	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.		

Exhibits

Exhibit 1

Description: ENGINEERING STATEMENT

Attachment 1

Description	Type	Conversion	
		Status	File
<u>Exhibit #1, Engineering Statement</u>	Adobe Acrobat File	not needed	PDF

Exhibit 13

Description: MAIN STUDIO LOCATION

THE MAIN STUDIO FOR KCRBFM IS LOCATED IN THE CITY OF LICENSE, BEMIDJI, MN, IN COMPLAINE WITH SECTION 73.1125(A)(1).

Attachment 13

Description	Type	Conversion	
		Status	File
<u>Exhibit #13, Main Studio Location</u>	Adobe Acrobat File	not needed	PDF

Attachment 14

Exhibit 15

Description: INTERFERENCE STUDY

Attachment 15

Description	Type	Conversion	
		Status	File
<u>Exhibit #15, Interference Study</u>	Adobe Acrobat File	not needed	PDF

Exhibit 18

Description: TELEVISION CHANNEL 6 PROTECTION

THERE ARE TWO CHANNEL 6 TELEVISION STATIONS WITHIN THE 246 KILOMETER CUT-OFF DISTANCE FOR FM CHANNEL 203. KBJRTV, SUPERIOR, WISCONSIN IS LOCATED AT A DISTANCE OF 206.46 KILOMETERS AT 118.8 DEGREES AZIMUTH, WHILE WDAYTV, FARGO ND IS LOCATED AT A DISTANCE OF 219.04 KILOMETERS AT 250.3 DEGREES. THE PROPOSED FM INTERFERENCE CONTOUR IS 53.5 DBU. THIS CONTOUR DOES NOT OVERLAP THE 47 DBU SERVICE CONTOUR OF EITHER TV FACILITY. ALTHOUGH THE 6 DB RECEIVER DIRECTIVITY CREDIT WAS VALID IN BOTH CASES, IT WAS NOT APPLIED IN THIS 'WORST-CASE' SCENARIO. A STUDY POWER OF 85.075 KW(83 KW H + 83 KW V/40) WAS USED TO PREPARE THIS EXHIBIT.

Attachment 18

Description	Type	Conversion	
		Status	File
<u>Exhibit #18, Television Channel 6 Protection</u>	Adobe Acrobat File	not needed	PDF

Exhibit 21**Description:** INTERNATIONAL BORDERS

ALTHOUGH THE PROPOSED LOCATION IS WITHIN 320 KILOMETERS OF THE US/CANADIAN BORDER, THERE ARE NO SIGNIFICANT RELATIONSHIPS WITH CANADIAN FACILITIES.

Attachment 21

Description	Type	Conversion	
		Status	File
Exhibit #21, Canada Showing	Adobe Acrobat File	not needed	PDF

Exhibit 22**Description:** RF HAZARD STATEMENT**Attachment 22**

Description	Type	Conversion	
		Status	File
Exhibit #22, RF Hazard Statement	Adobe Acrobat File	not needed	PDF

EXHIBIT #1
ENGINEERING STATEMENT

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

BMPED20011114ABQ

June 2002

Channel 203C1

83 kW H & V

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

The applicant proposes to amend its pending application (BMPED20011114ABQ) to change Section VII, Questions 3, 5, 6, 7, 8 and 9. The instant proposal, while responding in the same manner to Section VII, Questions 12, 13, 14, 15 and 16, modifies the supporting engineering exhibits for those questions. Minnesota Public Radio (MPR) proposes to change the antenna location, antenna height and effective radiated power. No other changes are being proposed at this time.

Exhibit #13 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 15,636 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 63,028 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 #E15 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 3-5 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 KBPN, a construction permit in Brainerd (BNPED20000119ACU) is shown on the map and FMOVER table on pages 6-7. There are no I.F. relationships.

Exhibit #18 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 85.075 (83 + 83/40). 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 contours of KBRJTV and WDAYTV. Pages #2-4 are tabular printouts of the predicted distances to the relevant contours used in the study.

Exhibit #21 shows that although 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 #22 shows compliance with the Commission's R.F. emission's standards.

Page #4 of this exhibit (Ex. # 1) is a declaration made by the preparer, Kate Michler, attesting to her qualifications.

Exh. 1, p. 3

Doug Vernier Telecommunications Consultants
 KCRBFM, Minnesota Public Radio, Amendment to BMPED20011114ABQ
 ERP = 83 kw
 Channel = 203

Azimuth Deg.T.	Ave. Elev. 3 to 16 km Meters AMSL	Effective Antenna Height Meters AAT	ERP (dBk)	F(50-50) Distance to 60 dBu Contour km
0	425.5	294.4	19.191	70.06
10	428.5	291.4	19.191	69.82
20	427.3	292.6	19.191	69.92
30	427.6	292.3	19.191	69.89
40	432.0	287.9	19.191	69.54
50	436.2	283.7	19.191	69.20
60	430.8	289.1	19.191	69.63
70	428.2	291.7	19.191	69.85
80	424.6	295.3	19.191	70.13
90	420.0	299.9	19.191	70.49
100	415.3	304.6	19.191	70.84
110	408.8	311.1	19.191	71.33
120	406.9	313.0	19.191	71.47
130	407.3	312.6	19.191	71.44
140	410.1	309.8	19.191	71.23
150	415.4	304.5	19.191	70.84
160	420.9	299.0	19.191	70.42
170	419.8	300.1	19.191	70.51
180	418.6	301.3	19.191	70.60
190	413.7	306.2	19.191	70.96
200	406.3	313.6	19.191	71.51
210	406.4	313.5	19.191	71.51
220	407.9	312.0	19.191	71.40
230	415.0	304.9	19.191	70.87
240	423.2	296.7	19.191	70.24
250	426.6	293.3	19.191	69.97
260	427.4	292.5	19.191	69.90
270	424.8	295.1	19.191	70.12
280	415.8	304.1	19.191	70.81
290	410.4	309.5	19.191	71.21
300	413.2	306.7	19.191	71.00
310	417.1	302.8	19.191	70.71
320	414.4	305.5	19.191	70.92
330	419.6	300.3	19.191	70.52
340	418.7	301.2	19.191	70.59
350	423.1	296.8	19.191	70.25
Ave. =	419.1 M	300.8 M		

Antenna Radiation Center AMSL = 719.9 M
 NGDC 30 Arc Sec.

Geographic Coordinates:

N. Lat. 47 42 21
 W. Lng. 94 29 09

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 four 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;

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

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

Katherine A. Michler Katherine A. Michler

Executed on June 12, 2002

Subscribed and sworn before me this 12th day of June, 2002.

Paul L. Dwyer
Notary Public in and for the State of Iowa

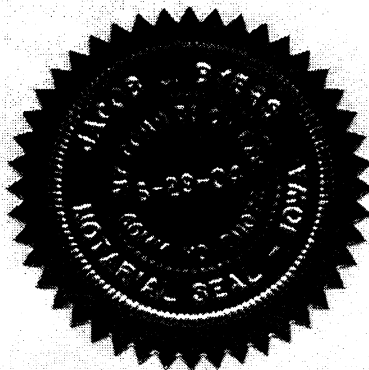


Exhibit #13, Main Studio Location



KCRBFM.A
 Amendment
 BMPED2001114ABQ
 Latitude: 47-42-21 N
 Longitude: 094-29-09 W
 ERP: 83.0 kW
 Channel: 203
 Frequency: 88.5 MHz
 AMSL Height: 719.9 m
 Elevation: 436.5 m
 Horiz. Pattern: Omni
 Vert. Pattern: No

 Pop in 60 dBu =
 63,028
 Area in 60 dBu =
 15,636 sq. km.

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 Cedar Falls, Iowa 50613
 Telephone: 515-261-1111
 Telecommunications Consultants

Minnesota Public Radio
Amendment to BMPED20011114ABQ

REFERENCE
47 42 21 N
94 29 09 W

CH# 203C1 - 88.5 MHz, Pwr= 83 kw, HAAT=300.8 M, COR= 720 M
Average Protected F(50-50)= 70.56 km
Ave. F(50-10) 40 dBu= 167.3 54 dBu= 102.5 80 dBu= 32.1 100 dBu= 9.7

DISPLAY DATES
DATA 06-12-02
SEARCH 06-13-02

CH CITY	CALL	TYPE STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kw) HAAT(M)	COR(M) INT(km)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT* (in km)
203C1 Bemidji	KCRBFM	LIC MN CN	192.7 12.7	0.57 BLED19940711KA	47 42 03 94 29 15	95.000 297	717 170.4	71.6 Minnesota Public Radio	-240.36<	-238.40<
203C1 Bemidji	KCRBFM	CP MN CX	236.6 56.6	2.92 BPED20010208AAM	47 41 29 94 31 06	100.000 259	680 168.2	69.0 Minnesota Public Radio	-235.79<	-233.41<
203C1 Bemidji	KCRBFM	APP MN CX	269.3 89.3	12.38 BMPED20011114ABQ	47 42 16 94 39 03	100.000 298	713 171.8	72.2 Minnesota Public Radio	-229.95<	-227.19<
202A International Falls > Reference HAAT at	*AP202	APP MN CX	44.7 224.7	121.06 BNPED20000119ACU	48 28 24 93 20 00	5.750 46	397 28.5	19.4 Minnesota Public Radio	23.22	0.65
Pwr= 83.0 kw, Pro. Dist. = 69.36 km, Int Dist. = 101.03 km										
202C3 Brainerd > Reference HAAT at	*KBPN.C	CP MN CN	179.2 359.2	142.68 BPED19981113MC	46 25 21 94 27 41	5.000 201	597 55.6	37.5 Minnesota Public Radio	16.52	2.67
Pwr= 83.0 kw, Pro. Dist. = 70.58 km, Int Dist. = 102.55 km										
203A Superior	971211	APP WI VN	118.8 298.8	206.46 BPED19971211MC	46 47 21 92 06 51	1.000 87	390 57.7	17.2 St Of Wi Educational Comm.	78.23	21.93
206B Fort Frances	CKSB9F	OPE ON CN	28.4 208.4	118.37	48 38 22 93 43 14	50.000 142	0 5.8	63.9	42.01	40.83
206C2 Waubun	960328	APP MN VN	226.9 46.9	108.08 BPED19960328ME	47 02 18 95 31 34	50.000 85	555 4.5	42.0 Nijjii Broadcast Corporati	33.04	56.47
256C1 Walker	KLLZFM	LIC MN C	211.1 31.1	63.76 BLH20010223AAP	47 12 52 94 55 18	100.000 154	598 0.0	59.0 Bg Broadcasting, Inc.	34.0R	29.8M
204C1 Fargo	KFBN	LIC ND EN	250.3 70.3	218.57 BLED19971222KD	47 00 48 97 11 37	100.000 265	556 101.6	69.5 Fargo Baptist Church	46.37	46.56
204A Esko	970331	APP MN VN	123.9 303.9	195.55 BPED19970331MA	46 42 22 92 21 44	0.450 29	372 11.7	8.3 Lincoln High School Esko,	113.30	84.77
201A Cat Hills	ALLO	MB	328.9 148.9	175.10	49 02 50 95 43 29	6.000 100	0 2.8	38.7	101.79	91.15
205A Cat Hills	ALLO	MB	328.9 148.9	175.10	49 02 50 95 43 29	6.000 100	0 2.8	38.7	101.79	91.15
203C2 Appleton	KNCM	LIC MN CN	202.9 22.9	305.23 BLED19970131KC	45 10 03 96 00 02	34.000 172	479 132.1	51.4 Minnesota Public Radio	102.57	86.50
06+2C Superior	KBJRTV	LI WI HY	118.8 298.8	206.46 BLCT20000517AEX	46 47 21 92 06 51	100.000 302	603 0.0	103.7 Kbjr License, Inc.	To Grd B=	102.75

"*" = ERP and HAAT on direct line to and from reference station. "<" = Contour Overlap

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 and the DA power, if applicable, along the straight line azimuths between the reference station and the database station are used and visa versa. The column labeled **" OUT "** shows the distance in 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 overlap interference.

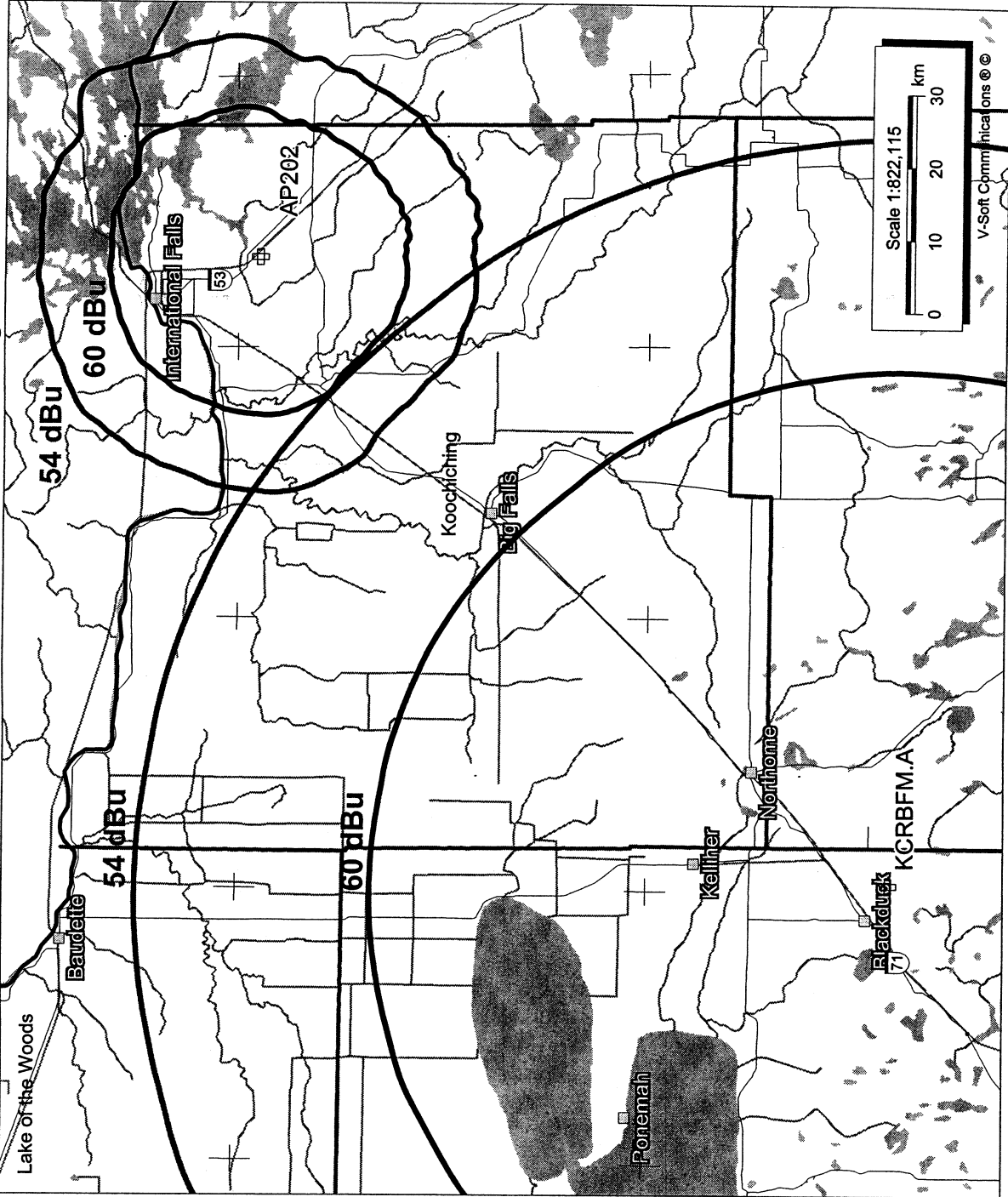
Under the "AZIMUTH" column, the first row of numbers indicate the bearings from True North of the data base stations in relationship with the reference station, while the numbers in the second row indicate the reverse bearings from the database station to the reference station.

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.

Exhibit #15, Pg #3, KCRBFM v. AP202



KCRBFM.A
 Amendment
 BMPED2001114ABQ
 Latitude: 47-42-21 N
 Longitude: 094-29-09 W
 ERP: 83.0 kW
 Channel: 203
 Frequency: 88.5 MHz
 AMSL Height: 719.9 m
 Elevation: 436.5 m
 Horiz. Pattern: Omni
 Vert. Pattern: No

AP202
 BNPED20000119ACU
 Latitude: 48-28-24 N
 Longitude: 093-20-00 W
 ERP: 5.75 kW
 Channel: 202
 Frequency: 88.3 MHz
 AMSL Height: 397.0 m
 Elevation: 342.2 m
 Horiz. Pattern: Omni
 Vert. Pattern: No

V
 Doug Vernier
 1600 Pennington Drive
 Cedar Falls, Iowa 50613
 Telecommunications Consultants
 www.dougvernier.com 563-246-4444

V-Soft Communications
06-12-2002 30 Sec. Terrain Data

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

KCRBFM
Channel = 203C1
Max ERP = 83 kW
RCAMSL = 719.9 M
N. Lat = 474221
W. Lng = 942909

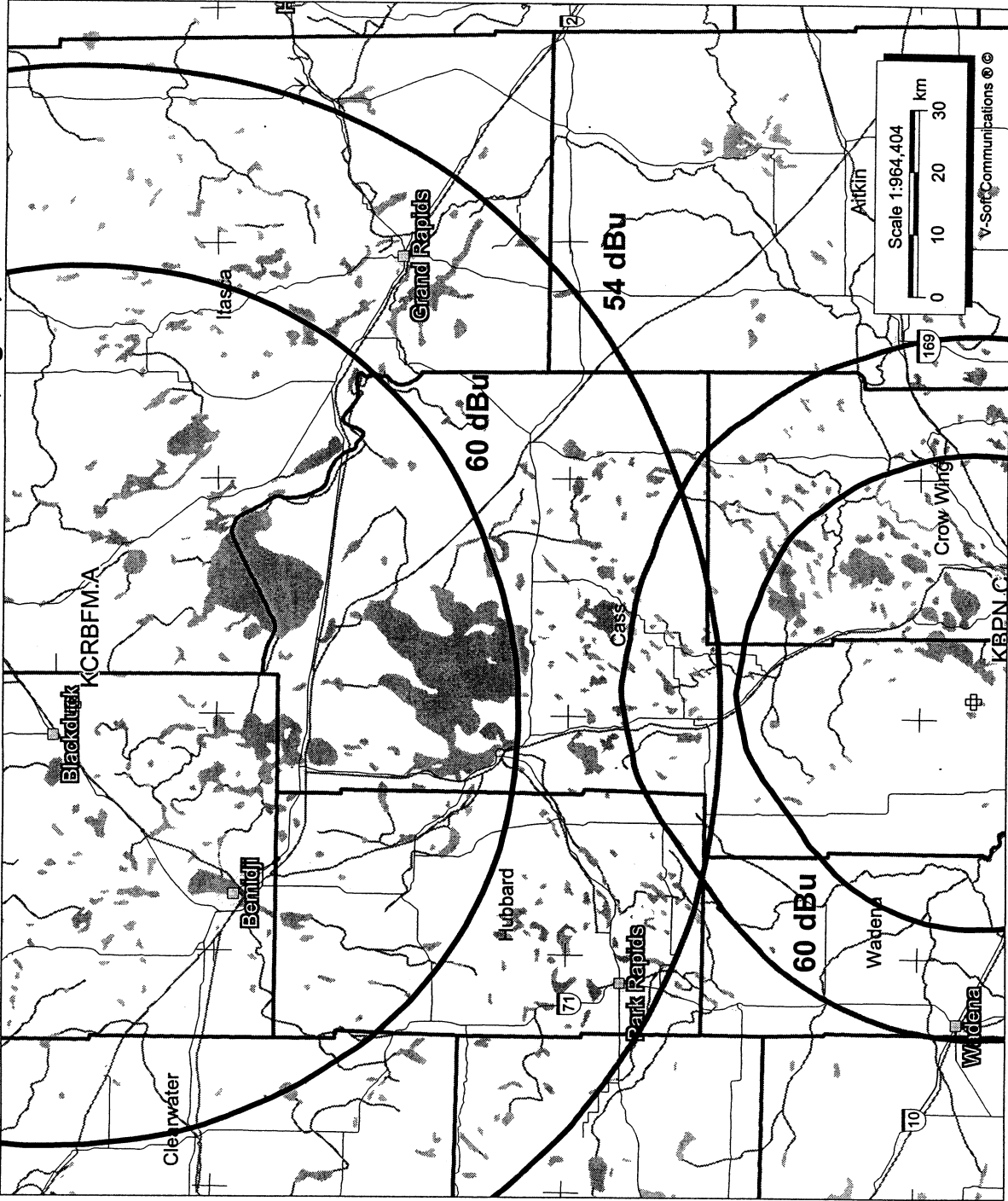
Protected
60 dBu

Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
196.0	005.7500	0048.3	020.0	050.1	083.0000	0283.7	104.1	53.0
197.0	005.7500	0048.2	020.0	050.0	083.0000	0283.7	104.0	53.0
198.0	005.7500	0048.0	019.9	049.8	083.0000	0283.7	103.8	53.1
199.0	005.7500	0047.6	019.9	049.6	083.0000	0283.7	103.7	53.1
200.0	005.7500	0047.5	019.8	049.4	083.0000	0283.9	103.6	53.2
201.0	005.7500	0047.6	019.9	049.3	083.0000	0283.9	103.4	53.2
202.0	005.7500	0047.9	019.9	049.1	083.0000	0283.9	103.2	53.3
203.0	005.7500	0047.9	019.9	048.9	083.0000	0283.9	103.0	53.3
204.0	005.7500	0048.1	020.0	048.8	083.0000	0283.9	102.8	53.4
205.0	005.7500	0048.3	020.0	048.6	083.0000	0283.9	102.6	53.5
206.0	005.7500	0048.5	020.0	048.4	083.0000	0284.2	102.4	53.5
207.0	005.7500	0048.6	020.1	048.3	083.0000	0284.2	102.3	53.6
208.0	005.7500	0048.5	020.1	048.1	083.0000	0284.2	102.2	53.6
209.0	005.7500	0048.3	020.0	047.9	083.0000	0284.2	102.1	53.6
210.0	005.7500	0047.9	019.9	047.7	083.0000	0284.2	102.1	53.6
211.0	005.7500	0047.4	019.8	047.5	083.0000	0284.7	102.1	53.7
212.0	005.7500	0047.1	019.7	047.3	083.0000	0284.7	102.0	53.7
213.0	005.7500	0046.8	019.7	047.1	083.0000	0284.7	102.0	53.7
214.0	005.7500	0046.5	019.6	046.9	083.0000	0284.7	102.0	53.7
215.0	005.7500	0046.1	019.5	046.7	083.0000	0284.7	102.0	53.7
216.0	005.7500	0045.7	019.4	046.5	083.0000	0284.7	102.0	53.7
217.0	005.7500	0045.3	019.3	046.3	083.0000	0285.1	102.0	53.7
218.0	005.7500	0045.1	019.3	046.1	083.0000	0285.1	102.0	53.7
219.0	005.7500	0045.1	019.3	045.9	083.0000	0285.1	102.0	53.7
220.0	005.7500	0045.1	019.3	045.7	083.0000	0285.1	101.9	53.7
221.0	005.7500	0045.2	019.3	045.6	083.0000	0285.1	101.9	53.7
222.0	005.7500	0045.3	019.3	045.4	083.0000	0285.6	101.8	53.7
223.0	005.7500	0045.4	019.4	045.2	083.0000	0285.6	101.8	53.8
224.0	005.7500	0045.5	019.4	045.0	083.0000	0285.6	101.8	53.8
225.0	005.7500	0045.5	019.4	044.8	083.0000	0285.6	101.8	53.8
226.0	005.7500	0045.3	019.3	044.6	083.0000	0285.6	101.8	53.8
227.0	005.7500	0045.1	019.3	044.4	083.0000	0286.0	101.9	53.8
228.0	005.7500	0044.9	019.2	044.2	083.0000	0286.0	101.9	53.7
229.0	005.7500	0045.0	019.3	044.0	083.0000	0286.0	101.9	53.7
230.0	005.7500	0045.2	019.3	043.9	083.0000	0286.0	101.9	53.7
231.0	005.7500	0045.4	019.3	043.7	083.0000	0286.0	101.9	53.7

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
232.0	005.7500	0045.5	019.4	043.5	083.0000	0286.4	101.9	53.8
233.0	005.7500	0045.7	019.4	043.3	083.0000	0286.4	101.9	53.8
234.0	005.7500	0045.9	019.5	043.1	083.0000	0286.4	101.9	53.7
235.0	005.7500	0046.2	019.5	042.9	083.0000	0286.4	101.9	53.7
236.0	005.7500	0046.5	019.6	042.7	083.0000	0286.4	101.9	53.7
237.0	005.7500	0047.0	019.7	042.5	083.0000	0286.4	101.9	53.8
238.0	005.7500	0047.6	019.9	042.3	083.0000	0287.0	101.8	53.8
239.0	005.7500	0048.5	020.1	042.1	083.0000	0287.0	101.7	53.8
240.0	005.7500	0049.4	020.2	041.9	083.0000	0287.0	101.7	53.8
241.0	005.7500	0050.3	020.4	041.6	083.0000	0287.0	101.6	53.9
242.0	005.7500	0051.1	020.6	041.4	083.0000	0287.5	101.6	53.9
243.0	005.7500	0051.8	020.7	041.2	083.0000	0287.5	101.5	53.9
244.0	005.7500	0052.3	020.8	041.0	083.0000	0287.5	101.6	53.9
245.0	005.7500	0052.6	020.9	040.8	083.0000	0287.5	101.7	53.9
246.0	005.7500	0052.9	021.0	040.6	083.0000	0287.5	101.8	53.8
247.0	005.7500	0053.1	021.0	040.4	083.0000	0287.9	101.9	53.8
248.0	005.7500	0053.4	021.1	040.2	083.0000	0287.9	102.0	53.8
249.0	005.7500	0053.5	021.1	040.0	083.0000	0287.9	102.2	53.7
250.0	005.7500	0053.6	021.1	039.8	083.0000	0287.9	102.3	53.7
251.0	005.7500	0053.8	021.1	039.6	083.0000	0287.9	102.5	53.6
252.0	005.7500	0054.0	021.2	039.4	083.0000	0288.2	102.6	53.6
253.0	005.7500	0054.3	021.2	039.2	083.0000	0288.2	102.8	53.5
254.0	005.7500	0054.6	021.3	039.1	083.0000	0288.2	102.9	53.5
255.0	005.7500	0055.0	021.4	038.9	083.0000	0288.2	103.1	53.4
256.0	005.7500	0055.3	021.4	038.7	083.0000	0288.2	103.3	53.4

Exhibit #15, Pg #6, KCRBFM v.KBPN.C



KCRBFM.A
 Amendment
 BNPED2001114ABQ
 Latitude: 47-42-21 N
 Longitude: 094-29-09 W
 ERP: 83.0 kW
 Channel: 203
 Frequency: 88.5 MHz
 AMSL Height: 719.9 m
 Elevation: 436.5 m
 Horiz. Pattern: Omni
 Vert. Pattern: No

KBPN.C
 BNPED1998113MC
 Latitude: 46-25-21 N
 Longitude: 094-27-41 W
 ERP: 5.00 kW
 Channel: 202
 Frequency: 88.3 MHz
 AMSL Height: 597.0 m
 Elevation: 394.08 m
 Horiz. Pattern: Omni
 Vert. Pattern: No

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 Telecommunications Consultants

V-Soft Communications ©

V-Soft Communications
06-12-2002 30 Sec. Terrain Data

KBPN.C BPED19981113MC
Channel = 202C3
Max ERP = 5 kW
RCAMSL = 597 M
N. Lat = 46 25 21
W. Lng = 94 27 41

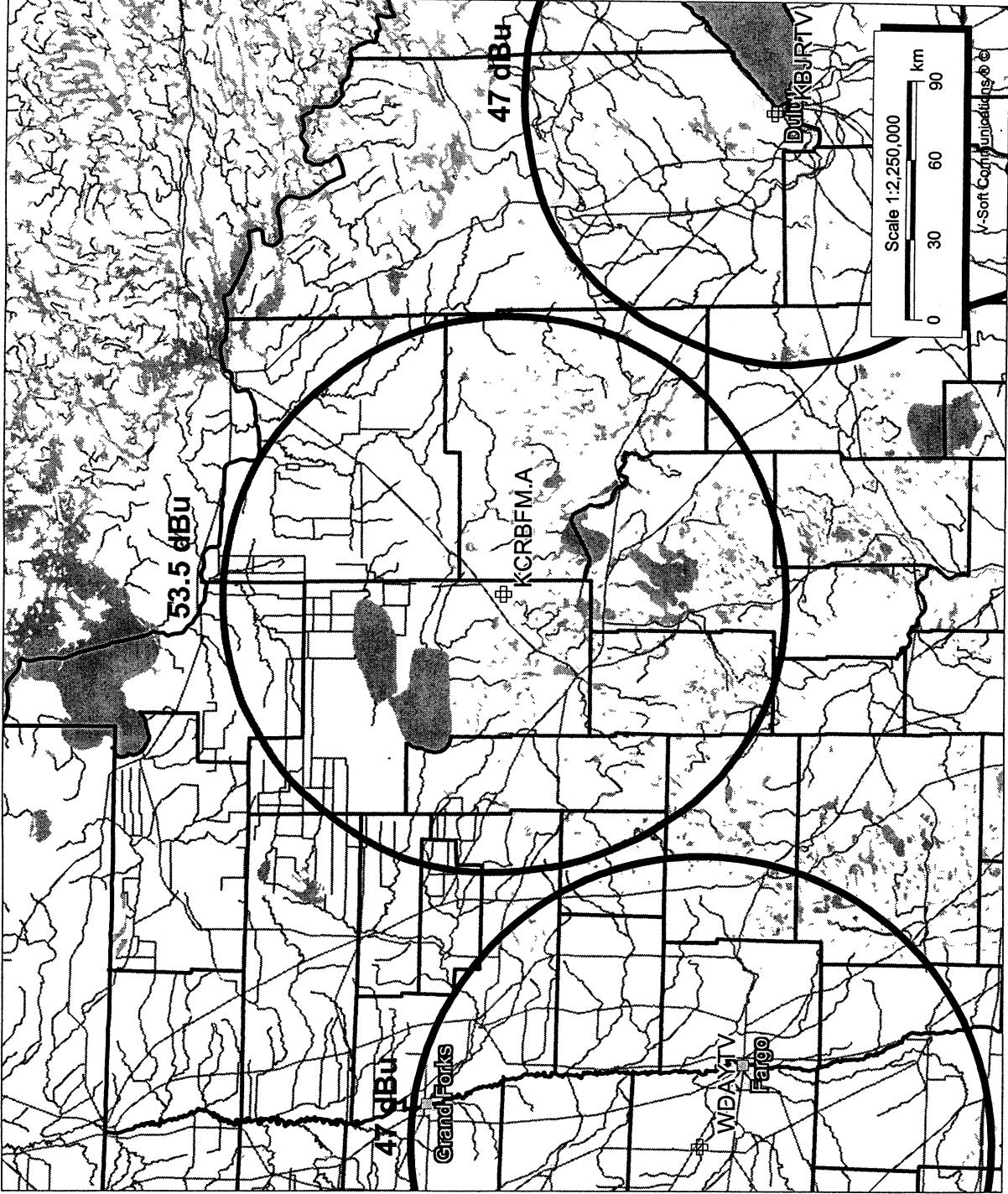
KCRBFM BMPED20011114ABQ
Channel = 203C1
Max ERP = 83 kW
RCAMSL = 719.9 M
N. Lat = 47 42 21
W. Lng = 94 29 09

Protected
60 dBu

Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
342.0	005.0000	0183.9	036.0	184.9	083.0000	0303.0	108.8	52.2
343.0	005.0000	0185.6	036.2	184.6	083.0000	0303.0	108.4	52.3
344.0	005.0000	0187.4	036.3	184.4	083.0000	0302.7	108.1	52.4
345.0	005.0000	0189.3	036.5	184.1	083.0000	0302.7	107.7	52.5
346.0	005.0000	0191.1	036.6	183.8	083.0000	0302.7	107.4	52.6
347.0	005.0000	0192.5	036.7	183.5	083.0000	0302.5	107.1	52.7
348.0	005.0000	0193.3	036.8	183.1	083.0000	0302.5	106.8	52.7
349.0	005.0000	0193.5	036.8	182.8	083.0000	0302.5	106.6	52.8
350.0	005.0000	0193.3	036.8	182.5	083.0000	0302.2	106.5	52.8
351.0	005.0000	0193.4	036.8	182.1	083.0000	0302.2	106.4	52.9
352.0	005.0000	0194.0	036.9	181.8	083.0000	0302.2	106.2	52.9
353.0	005.0000	0195.0	036.9	181.4	083.0000	0301.8	106.0	53.0
354.0	005.0000	0196.0	037.0	181.1	083.0000	0301.8	105.9	53.0
355.0	005.0000	0196.8	037.1	180.8	083.0000	0301.8	105.7	53.0
356.0	005.0000	0197.8	037.2	180.4	083.0000	0301.3	105.6	53.1
357.0	005.0000	0198.8	037.3	180.1	083.0000	0301.3	105.5	53.1
358.0	005.0000	0200.1	037.4	179.7	083.0000	0301.3	105.3	53.1
359.0	005.0000	0201.4	037.5	179.3	083.0000	0301.0	105.2	53.2
000.0	005.0000	0202.7	037.6	179.0	083.0000	0301.0	105.1	53.2
001.0	005.0000	0203.9	037.7	178.6	083.0000	0301.0	105.1	53.2
002.0	005.0000	0203.7	037.6	178.3	083.0000	0301.3	105.1	53.2
003.0	005.0000	0202.8	037.6	177.9	083.0000	0301.3	105.2	53.2
004.0	005.0000	0202.2	037.5	177.6	083.0000	0301.3	105.3	53.1
005.0	005.0000	0201.5	037.5	177.2	083.0000	0301.5	105.5	53.1
006.0	005.0000	0201.1	037.4	176.9	083.0000	0301.5	105.6	53.1
007.0	005.0000	0200.6	037.4	176.5	083.0000	0301.5	105.8	53.0
008.0	005.0000	0200.2	037.4	176.2	083.0000	0301.6	105.9	53.0
009.0	005.0000	0199.6	037.3	175.8	083.0000	0301.6	106.1	52.9
010.0	005.0000	0199.2	037.3	175.5	083.0000	0301.6	106.3	52.9
011.0	005.0000	0199.4	037.3	175.1	083.0000	0301.6	106.4	52.8
012.0	005.0000	0200.1	037.4	174.8	083.0000	0301.6	106.6	52.8
013.0	005.0000	0201.0	037.4	174.4	083.0000	0301.8	106.7	52.8
014.0	005.0000	0201.8	037.5	174.1	083.0000	0301.8	106.9	52.7
015.0	005.0000	0202.5	037.5	173.8	083.0000	0301.8	107.0	52.7
016.0	005.0000	0203.3	037.6	173.4	083.0000	0301.4	107.2	52.6

Ex #18, Television Channel 6 Protection



KCRBFM.A
 Amendment
 BNPED2001114ABQ
 Latitude: 47-42-21 N
 Longitude: 094-29-09 W
 Study ERP: 85.075 kW
 83 kW H + 83 kW V/40
 Channel: 203
 Frequency: 88.5 MHz
 AMSL Height: 719.9 m
 Elevation: 436.5 m
 Horiz. Pattern: Omni
 Vert. Pattern: No

KBJRTV
 BLCT20000517AEX
 Latitude: 46-47-21 N
 Longitude: 092-06-51 W
 ERP: 100.00 kW
 Channel: 06+
 Frequency: 85.5 MHz
 AMSL Height: 603.0 m
 Elevation: 337.44 m
 Horiz. Pattern: Omni
 Vert. Pattern: No

WDAYTV
 BMLCT624
 Latitude: 47-00-43 N
 Longitude: 097-11-58 W
 ERP: 100.00 kW
 Channel: 06Z
 Frequency: 85.0 MHz
 AMSL Height: 643.0 m
 Elevation: 287.0 m
 Horiz. Pattern: Omni
 Vert. Pattern: No

Exh. 18, p #2

Doug Vernier Telecommunications Consultants
 KCRBFM, Minnesota Public Radio, Amendment to BMPED20011114ABQ
 ERP = 85.075 kw
 Channel = 203

Azimuth Deg.T.	Ave. Elev. 3 to 16 km Meters AMSL	Effective Antenna Height Meters AAT	ERP (dBk)	F(50-10) Distance to 53.5 dBu Contour km
0	425.5	294.4	19.298	103.87
10	428.5	291.4	19.298	103.57
20	427.3	292.6	19.298	103.69
30	427.6	292.3	19.298	103.66
40	432.0	287.9	19.298	103.24
50	436.2	283.7	19.298	102.82
60	430.8	289.1	19.298	103.35
70	428.2	291.7	19.298	103.61
80	424.6	295.3	19.298	103.95
90	420.0	299.9	19.298	104.40
100	415.3	304.6	19.298	104.85
110	408.8	311.1	19.298	105.51
120	406.9	313.0	19.298	105.71
130	407.3	312.6	19.298	105.67
140	410.1	309.8	19.298	105.37
150	415.4	304.5	19.298	104.84
160	420.9	299.0	19.298	104.31
170	419.8	300.1	19.298	104.42
180	418.6	301.3	19.298	104.54
190	413.7	306.2	19.298	105.01
200	406.3	313.6	19.298	105.77
210	406.4	313.5	19.298	105.77
220	407.9	312.0	19.298	105.61
230	415.0	304.9	19.298	104.88
240	423.2	296.7	19.298	104.09
250	426.6	293.3	19.298	103.76
260	427.4	292.5	19.298	103.68
270	424.8	295.1	19.298	103.94
280	415.8	304.1	19.298	104.81
290	410.4	309.5	19.298	105.34
300	413.2	306.7	19.298	105.06
310	417.1	302.8	19.298	104.68
320	414.4	305.5	19.298	104.95
330	419.6	300.3	19.298	104.44
340	418.7	301.2	19.298	104.53
350	423.1	296.8	19.298	104.10

Ave. =	419.1 M	300.8 M		

Antenna Radiation Center AMSL = 719.9 M
 NGDC 30 Arc Sec.

Geographic Coordinates:

N. Lat. 47 42 21
 W. Lng. 94 29 09

Azimuth Deg.T.	Ave. Elev. 3 to 16 km Meters AMSL	Effective Antenna Height Meters AAT	ERP (dBk)	F(50-50) Distance to 47 dBu Contour km
0	419.4	183.6	20.000	92.43
10	410.9	192.1	20.000	93.30
20	390.8	212.2	20.000	95.30
30	372.5	230.5	20.000	97.08
40	323.9	279.1	20.000	101.72
50	254.2	348.8	20.000	107.20
60	189.8	413.2	20.000	112.55
70	183.5	419.5	20.000	113.10
80	183.1	419.9	20.000	113.14
90	183.0	420.0	20.000	113.15
100	183.0	420.0	20.000	113.15
110	183.0	420.0	20.000	113.15
120	183.0	420.0	20.000	113.15
130	183.0	420.0	20.000	113.15
140	183.1	419.9	20.000	113.14
150	186.5	416.5	20.000	112.84
160	191.4	411.6	20.000	112.40
170	194.0	409.0	20.000	112.17
180	195.1	407.9	20.000	112.07
190	195.7	407.3	20.000	112.02
200	190.1	412.9	20.000	112.52
210	189.3	413.7	20.000	112.58
220	237.6	365.4	20.000	108.45
230	348.2	254.8	20.000	99.43
240	384.6	218.4	20.000	95.90
250	389.2	213.8	20.000	95.45
260	398.4	204.6	20.000	94.55
270	402.4	200.6	20.000	94.15
280	415.6	187.4	20.000	92.82
290	429.4	173.6	20.000	91.37
300	431.0	172.0	20.000	91.19
310	433.5	169.5	20.000	90.92
320	427.1	175.9	20.000	91.61
330	423.7	179.3	20.000	91.98
340	423.2	179.8	20.000	92.03
350	425.7	177.3	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

EXH. 18, p. 4

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

Azimuth Deg.T.	Ave. Elev. 3 to 16 km Meters AMSL	Effective Antenna Height Meters AAT	ERP (dBk)	F(50-50) Distance to 47 dBu Contour km
0	296.0	347.0	20.000	107.07
10	292.2	350.8	20.000	107.35
20	290.4	352.6	20.000	107.48
30	289.0	354.0	20.000	107.58
40	287.9	355.1	20.000	107.66
50	286.1	356.9	20.000	107.80
60	283.0	360.0	20.000	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	278.1	364.9	20.000	108.40
110	277.5	365.5	20.000	108.45
120	277.3	365.7	20.000	108.47
130	277.4	365.6	20.000	108.46
140	277.5	365.5	20.000	108.46
150	278.9	364.1	20.000	108.35
160	279.6	363.4	20.000	108.29
170	281.7	361.3	20.000	108.13
180	282.3	360.7	20.000	108.08
190	282.5	360.5	20.000	108.07
200	287.0	356.0	20.000	107.73
210	287.6	355.4	20.000	107.68
220	289.0	354.0	20.000	107.58
230	292.2	350.8	20.000	107.35
240	295.3	347.7	20.000	107.12
250	301.2	341.8	20.000	106.70
260	305.1	337.9	20.000	106.42
270	306.4	336.6	20.000	106.33
280	306.0	337.0	20.000	106.36
290	306.1	336.9	20.000	106.35
300	304.8	338.2	20.000	106.44
310	305.1	337.9	20.000	106.42
320	305.3	337.7	20.000	106.41
330	304.6	338.4	20.000	106.45
340	302.1	340.9	20.000	106.63
350	298.9	344.1	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

Minnesota Public Radio
 Exhibit #21, Canada Showing

REFERENCE
 47 42 21 N
 94 29 09 W

CLASS = C1
 Current Spacings

DISPLAY DATES
 DATA 06-12-02
 SEARCH 06-12-02

----- Channel 203 - 88.5 MHz -----

Call	Channel	Location		Dist	Azi	FCC	Margin
KCRBFM LIC	203C1	Bemidji	MN	0.57	192.7	245.0	-244.43
KCRBFM CP	203C1	Bemidji	MN	2.92	236.6	245.0	-242.08
KCRBFM APP	203C1	Bemidji	MN	12.38	269.3	245.0	-232.62
AP202 APP	202A	International Falls	MN	121.06	44.7	133.0	-11.94
KBPN.C CP	202C3	Brainerd	MN	142.68	179.2	144.0	-1.32
971211 APP	203A	Superior	WI	206.46	118.8	200.0	6.46
CKSB9F OPE	206B	Fort Frances	ON	118.37	28.4	95.0	23.37
960328 APP	206C2	Waubun	MN	108.08	226.9	79.0	29.08
KLLZFM LIC	256C1	Walker	MN	63.76	211.1	34.0	29.76
KFBN LIC	204C1	Fargo	ND	218.57	250.3	177.0	41.57
970331 APP	204A	Esko	MN	195.55	123.9	133.0	62.55
ALLO	201A	Cat Hills	MB	175.10	328.9	99.0	76.10
ALLO	205A	Cat Hills	MB	175.10	328.9	99.0	76.10
KNCM LIC	203C2	Appleton	MN	305.23	202.9	224.0	81.23

Exhibit #22

R.F. RADIATION COMPLIANCE STATEMENT

**KCRBFM
Amendment to BMPED20011114ABQ
Minnesota Public Radio**

Channel 203 – 83 kW Omni-Directional

June 2002

The applicant's proposed power is 83 kW, however another application is being filed to use the same antenna in duplex that will raise the total ERP to 148 kW. The proposed antenna will have a center of radiation of 283.4 meters. 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, the proposed facility is predicted to produce a worst-case maximum R.F. non-ionization radiation level at a position six feet above the tower base (head level - based on the C.O.R. of 283.4 meters above ground minus 2 meters) of 124.976 microwatts per square centimeter. This figure is without regard for the antenna's vertical elevation field value toward the nadir, which will cause a reduction in the predicted "worst case" calculations. 124.976 microwatts per square centimeter is 12.5 percent of the maximum standard value for the frequency in use for a controlled area and 62.49 percent for an uncontrolled area.

Since "worst case" calculations were used and since it is well known that the actual RF power density level is considerably reduced at vertical angles toward the nadir the applicant is confident that there will be no exposure at the transmitter site greater than the maximum.

The applicant will protect workers on the tower by either reducing ERP or terminating transmission. A sign will be posted warning workers of the antenna, with a phone number to contact someone to reduce or terminate power.

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