## **FCC 340**

## **RECEIVED**

# APPLICATION FOR CONSTRUCTION PERMIT FOR NONCOMMERCIAL EDUCATIONAL BROADCAST STATION

DEC 8 - 1998

(Carefully read instructions before filing form) Return only form to FCC

ION Federal Communications Commission

|  | •   |                                       |   |  |                 | OF THE SECRETARY | '<br>                |
|--|---|---------------------------------------|---|--|-----------------|------------------|----------------------|
| Section I - GENERAL INFORM   | IATION  |                                       |   | FOR COMMISSION USE OF                          |                 | mH               | , i                  |
| 1. Name of Applicant   |   |                                       | Send notices and communications to the following person at the address below: |  |                 |                  | -                    |
| Minnesota Pu   | ublic Radi  | io                                    |   | ame<br>Mitzi T Gramli                          | ing             |                  |                      |
| Street Address or P.O. Box<br>45 East Seve                           | nth Stree   | et                                    | St  | reet Address or P.O. Box<br>45 East Sevent     | h Street        | <del></del>      |                      |
| City Saint Paul  | State MN  | ZIP Code<br>55101                     | Ci  | ty<br>Saint Paul                               | State MN        | ZIP Code         |                      |
| Telephone Number (include Are  | ea Code) 651.2  | 290.1500                              | Te  | elephone Number (include Are                   | a Code)651.     | 290.1259         | 9                    |
| 2. This application is for:  |   | □ам                                   |   | X <sub>FM</sub>                                | ] <sub>TV</sub> | -                | '                    |
| (a) Channel No. or Frequenc  | у   | (b) Principa                          | al  | City   |                 | State            |                      |
| 209  |   | Commun                                | nity  | Fergus Fall                                    | ls              | MN               | İ                    |
| MINOR change in  MAJOR modifica  File No. of constr                  | MAJOR change in licensed facilities; call sign:  MINOR change in licensed facilities; call sign:  MAJOR modification of construction permit; call sign:  File No. of construction permit; call sign:  MINOR modification of construction permit; call sign: |                                       |   |  |                 |                  |                      |
| []   | •   | •                                     |   | ile Number:                                    |                 |                  | · · · <del>-</del> · |
| NOTE: It is not necessary to us<br>Section I and those other portion | e this form to an<br>as of the form th  | mend a previous<br>nat contain the ar | ly file<br>nende  | ed application. Should you do sed information. | so, however, p  | lease submit (   | only                 |
| 3. Is this application mutually                                      | exclusive with a  | renewal applica                       | tion?   | ,  |                 | Yes X            | No                   |
| If Yes, state:   |   | Call letters                          | <u>-</u>  | City   | ity of License  | State            |                      |
|  |   | <u> </u>                              |   | 1  |                 |                  |                      |

main and a substantial transfer

|             |                        | - LEGAL QUALIFICATIONS  pplicant  |   |
|-------------|------------------------|---|---|
|             |                        | nesota Public Radio   |   |
| _           |                        |   |   |
| 1. /        | \pplic<br>—–           | ant is: (check one box below)   |   |
|             |                        | (a) governmental or public educational agency, board or institution   |   |
|             |                        | (b) private nonprofit educational institution   |   |
|             |                        | (c) nonprofit educational corporation   |   |
|             | X                      | (d) other (specify)   |   |
| 2.          | For                    | applicants 1(c) or (d), describe in an Exhibit the nature and educational purposes of the applicant.  | Exhibit No.                                 |
| <b>, 3.</b> | desc<br>bros           | applicants 1(c) or 1(d) applying for a new noncommercial educational television station only, ribe in an Exhibit how the applicant's officers, directors and members of its governing board are dly representative of the educational, cultural and civic segments of the principal community to erved.   | Exhibit No. N/A                             |
| 4.          | Des<br>73.:            | cribe in an Exhibit how the proposed station will be used, in accordance with 47 C.F.R. Section 103 or Section 73.621, for the advancement of an educational program.   | Exhibit No.                                 |
| 5.          | ch a                   | here any provision contained in any by-laws, articles of incorporation, partnership agreement, refer, statute or other document which would restrict the applicant in advancing an educational gram or complying with any Commission rule, policy or provision of the Communications Act of 4, as amended?  | Yes No                                      |
|             | If ?                   | es, provide particulars in an Exhibit.  | Exhibit No.<br>N/A                          |
|             |                        | CITIZENSHIP AND OTHER STATUTORY REQUIREMENTS  |   |
| 6.          | (a)                    | Is the applicant in violation of the provisions of Section 310 of the Communications Act of 1934, as amended, relating to interests of aliens and foreign governments? (See Instruction B to Section II.)   | ☐ Yes ☒ No                                  |
|             | (Ъ                     | Will any funds, credits or other financial assistance for the construction, purchase or operation of the station(s) be provided by aliens, foreign entities, domestic entities controlled by aliens, or their agents?   | Yes No                                      |
|             | If                     | the answer to (b) above is Yes, attach an Exhibit giving full disclosure concerning this assistance.  | Exhibit No.<br>N/A                          |
| 7           | b<br>ir<br>fe          | as an adverse finding been made or an adverse final action been taken by any court or administrative ody as to the applicant, any party to this application, or any non-party equity owner in the applicant, a civil or criminal proceeding brought under the provisions of any law related to the following: any slony; mass media related antitrust or unfair competition; fraudulent statements to another overnmental unit; or discrimination?  | ☐ Yes & No                                  |
|             | ii<br>a<br>h<br>t<br>t | the answer is Yes, attach as an Exhibit a full disclosure concerning the persons and matters avolved, including an identification of 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 as been earlier disclosed in connection with another application or as required by 47 C.F.R. Section .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 reviously reported matter. | Exhibit No. N/A  FCC 340 (Page 2) hilv 1997 |

#### PARTIES TO THE APPLICATION

3. Complete the following Table with respect to all parties to this application.

(NOTE: If the applicant considers that to furnish complete information would pose an unreasonable burden, it may request that the Commission waive the strict terms of this requirement with appropriate justification.

INSTRUCTIONS: If applicant is a corporation or an unincorporated association with 50 or fewer stockholders, stock subscribers, holders of membership certificates or other ownership interests, fill out all columns, giving the information requested as to all officers, directors and members of governing board. In addition, give the information as to all persons or entities who are the beneficial or record owners of or have the right to vote capital stock, membership ownership interests or are subscribers to such interest. If the applicant has more than 50 stockholders, stock subscribers or holders of membership certificates or other ownership interests, furnish the information as to officers, directors, members of governing board, and all persons or entities who are the beneficial or record owners of or have the right to vote 1% or more of the capital stock, membership or ownership interests. If applicant is a governmental or public educational agency, board or institution, fill out columns (a), (b), and (c) as to all members of the governing board and chief executive officers.

| Name and Residence<br>Address(es) | Office Held | Director or Member of Governing Roard Yes No | % of: Ownership (O) or Voting Stock(VS) or Membership (M) |  |  |
|-----------------------------------|-------------|--|---|--|--|
| (a)                               | (6)         | (c)  | (d)   |  |  |
| SEE EXHIBIT 2                     |             |  | ·   |  |  |
| •                                 |             |  |   |  |  |
|                                   | •           |  |   |  |  |
|                                   |             |  |   |  |  |
|                                   |             |  |   |  |  |
|                                   |             |  |   |  |  |

|     | *****      | - manual Countries of all al  |     |                 |     |    |
|-----|------------|---|-----|-----------------|-----|----|
|     | (1603      | the applicant, or any party to the application, have a petition to migrate to the expanded band 5-1705 (kHz)) or a permit or license either in the existing band or expanded band that is held in cination with the AM facility proposed to be modified herein? |     | Yes             |     | No |
|     | lf Ye      | s, provide particulars as an Exhibit.   | E   | dribit N<br>N/A | 0.  |    |
| 10. | Does       | the applicant or any party to the application have, or have they had, any interest in:  |     |                 |     |    |
|     | (a)        | a broadcast station, or pending broadcast station application before the Commission?  | K   | Yes             |     | No |
|     | <b>(b)</b> | a broadcast application which has been dismissed with prejudice by the Commission?  |     | Yes             | X   | No |
|     | (c)        | a broadcast application which has been denied by the Commission?  |     | Yes             | X   | N  |
|     | (d)        | a broadcast station, the license of which has been revoked?   |     | Yes             | X   |    |
|     | (e)        | a broadcast application in any pending or concluded Commission proceeding which left unresolved character issues against the applicant?   |     | Yes             | X   | א  |
|     |            | If the answer to any of the questions in (a)-(e) above is Yes, state in an Exhibit the following information:   | · [ | Exhibit<br>3    | No. |    |
|     |            | <ol> <li>Name of party having interest;</li> <li>Nature of interest or connection, giving dates;</li> <li>Call letters of stations or file number of application or docket; and</li> <li>Location.</li> </ol>   |     |                 |     |    |

## SECTION III - FINANCIAL QUALIFICATIONS

| . <b>4</b> 0 | TE: If this application is for a change in an operating facility DO NOT fill out this Section.   |
|--------------|--|
| 1.           | Is this application contingent upon receipt of a grant from the National Telecommunications and Yes No Information Administration?   |
| 2.           | 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?  |
| fur          | OTE: If either Questions 1 or 2 is answered "Yes," your application cannot be granted until all of the necessary funds are mmitted or appropriated. In the case of grants from the National Telecommunications and Information Administration, no other action on your part is required. If you rely on funds from a source specified in Question 2, you must advise the F.C.C. then the funds are committed or appropriated. This should be accomplished by letter amendment to your application, in plicate, signed in the same manner as the original application, and clearly identifying the application to be amended. |
| 3.           | 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.  |
| S            | ection IV - Program service statement  |
| t            | attach as an Exhibit, a brief description, in narrative form, of the planned programming service relating to  Exhibit No.  |
| N            | OTE: No program service statement need be filed where the proposed station's programming would be wholly "instructional" is that type of programming is defined in the instructions to this Section.   |

FCC Form 340 Application for a Construction Permit for a Noncommercial Educational FM Station in Fergus Falls, Minnesota

Minnesota Public Radio

EXHIBIT 1, Page 1 Refers to Section II, Item 2

## PURPOSE AND OBJECTIVES

This application is being submitted for authority to construct a noncommercial educational FM station to be located in Fergus Falls, Minnesota. Minnesota Public Radio is a not-for-profit, Section 501(c)(3) organization.

The proposed station would broadcast a full schedule of classical music programming able to serve the special interests and concerns of the Fergus Falls community. The purpose of this station would be to provide both an alternative and a complement to existing radio services. The station would provide classical music and cultural and educational programming of importance and interest to residents in the Fergus Falls area not currently available on other area stations.

Area residents would benefit from Minnesota Public Radio's ability to produce, acquire and deliver classical music programming that would be far beyond the capability or means of any single, independent station.

On a daily basis, the proposed station would present, on a noncommercial basis, classical music, cultural and educational broadcasts, along with some newscasts.

Given Minnesota Public Radio's regional staff of more than 30 full-time classical music staff and more than 40,000 CDs and records in our music library, and the finest network production facilities available, the proposed station would have the ability to broadcast programs unmatched by any other broadcast organization in the region.

In addition to its routine broadcast services, recent examples of the kinds of broadcast services that this station would provide include the following:

 production and broadcast of a three part series entitled "Beyond Joplin" in respect of Black History Month FCC Form 340
Application for a Construction Permit for a Noncommercial Educational FM Station in Fergus Falls, Minnesota

Minnesota Public Radio

EXHIBIT 1, Page 2 Refers to Section II, Item 2

- production and broadcast of a program entitled "Hildegard of Bingen: A Mystic's Music" in respect of Women's History Month
- production and broadcast of a collaborative effort with the Minnesota
  Orchestra entitled "At Home with the Minnesota Orchestra", broadcast live
  from an extended-care facility to over 200 extended-care facilities in
  Minnesota, as well as on MPR's classical music service stations
- broadcasts of the Concordia College (Moorhead, MN) Christmas Festival
- live broadcast of "The Festival of Nine Lessons and Carols" concert produced by the BBC from King's College in Cambridge, England

All of these programs have been available on the Minnesota Public Radio regional network classical music stations, and similar programs would be broadcast on the proposed new Minnesota Public Radio FM station located in Fergus Falls.

In addition, the proposed station would enjoy Minnesota Public Radio's access to the resources of National Public Radio, the British Broadcasting Corporation, and the Canadian Broadcasting Service and numerous other independent producers.

Minnesota Public Radio enjoys a close relationship with many educational institutions in the region. Eight of these institutions are Institutional Sponsors of Minnesota Public Radio and provide financial support for Minnesota Public Radio. Each institution appoints a member to the Council of Institutional Sponsors, which serves as a standing committee to Minnesota Public Radio's Board of Trustees. These educational institutions are:

St. John's University, Collegeville/St. Cloud, MN Concordia College, Moorhead, MN Luther College, Decorah, Iowa The College of St. Scholastica, Duluth, MN FCC Form 340
Application for a Construction Permit for a Noncommercial Educational FM Station in Fergus Falls, Minnesota

Minnesota Public Radio

EXHIBIT 1, Page 3
Refers to Section II, Item 2

College of Saint Benedict, St. Joseph, MN Michigan Technological University, Houghton, Michigan Gustavus Adolphus College, St. Peter, MN Bethany Lutheran College, St. Peter, MN

The participation of these institutions on the Minnesota Public Radio Council of Institutional Sponsors helps to assure that the educational needs of the residents served by Minnesota Public Radio's stations, including the proposed station, are met, both directly and as part of Minnesota Public Radio's cultural programming broadcast.

Whether it is regional or national programming, the programming on the proposed station would follow Minnesota Public Radio's award-winning tradition. In its almost 32-year history Minnesota Public Radio has repeatedly received virtually every award given to acknowledge outstanding radio broadcasting. For example, in 1995 Minnesota Public Radio won a George Foster Peabody Broadcasting Award for its classical music series Saint Paul Sundayâ, which is produced by Minnesota Public Radio, is broadcast on all of Minnesota Public Radio's classical music service stations, and is distributed nationally to public radio stations around the country by Public Radio International.

In the past two years alone, Minnesota Public Radio received over 50 national and regional awards for its programming. Minnesota Public Radio staff earned five American Women in Radio and Television awards, four Unity awards and a National Society of Professional Journalists award. In addition, Minnesota Public Radio won 16 awards from both the Northwest Broadcasters News Association in Radio/TV Awards and the Minnesota Associated Press Achievement Awards.

The continuous expansion of the network's "Award Wall" - now holding more than 150 such kudos - is a tribute to Minnesota Public Radio's excellence in community service, creativity, and broadcasting leadership, and a good

FCC Form 340 Application for a Construction Permit for a Noncommercial Educational FM Station in Fergus Falls, Minnesota

Minnesota Public Radio

EXHIBIT 1, Page 4 Refers to Section II, Item 2

indication of the kind of quality that would be provided by the proposed station.

Prepared by Mitzi T Gramling

FCC From 340
Application for Authority to Construct a
Noncommerical Educational FM Station
for Fergus Falls, MN

Minnesota Public Radio

## **EXHIBIT 2**

## Refers to Section II, Item 8

Attached please find a list of the names and addresses of the members of the Board of Trustees of Minnesota Public Radio and of Minnesota Communications Group.

The offices held are indicated.

All Trustees and Officers are citizens of the United States.

The principal profession or occupation of each, if any, is as indicated.

All members are elected by the full Board, except the following:

Board Members of Minnesota Public Radio's parent organization, Minnesota Communications Group, are also Board Members of Minnesota Public Radio.

Prepared by Mitzi T Gramling

# MINNESOTA PUBLIC RADIO BOARD OF TRUSTEES

November 13, 1998

## OFFICERS OF THE BOARD

Steven Rothschild, Chair

Richard Schoenke, Vice Chair

William H Kling, President

Barry Lindquist, Treasurer

Nedra Wicks, Secretary

## TRUSTEES

Jeffrey S Brown (1997)
Director
McKinsey & Company, Inc
3550 IDS Center
Minneapolis, MN 55402
(612) 371-3115

Peggy P Burnet (1998) 392 South Ferndale Road Wayzata, MN 55391 (612) 473-2961

René Copeland (1993) 7817 Bush Lake Drive Bloomington, MN 55438 (612) 944-7823

Dr Paul J Dovre (1996) President Concordia College Moorhead, MN 56560 (218) 299-3000

Sara H Gavin (1998)
Managing Director
Shandwick International
8400 Normandale Lake Blvd.
Suite 500
Minneapolis, MN 55437
(612) 841-6174

Morris L Goodwin (1994) Vice President and Treasurer Deluxe Corporation 3680 N Victoria Street Shoreview, MN 55126 (651) 483-7122

B Kristine Johnson (1998)
Sr. Vice President & President Vascular
Medtronic Inc.
7000 Central Avenue NE
Minneapolis MN 55432
(612/514-4414)

Ronald B Johnson (1997)
Vice President/General Merchandise
Manager for Home Decor
Target
33 South Sixth Street
Minneapolis, MN 55402
(612) 304-5991

William H Kling (1973) President & CEO Minnesota Public Radio 45 East Seventh Street Saint Paul, MN 55101 (651) 290-1555

# MINNESOTA PUBLIC RADIO Page 2

Clinton Lee (1990)
President
Weeres Industries
PO Box 98
Saint Cloud, MN 56302
(320) 251-3551

Joseph Leek (1992) 1618 Vermilion Road Duluth, MN 55812 (218) 720-1202

Bruce A Lilly (1993)
Director
MN Museum of American Art
Landmark Center
75 West Fifth Street #202
Saint Paul, MN 55102
(651) 292-4390

Barry Lindquist (1986) Senior Vice President Churchill Capital Inc 2400 Metropolitan Centre 333 South Seventh Street Minneapolis, MN 55402 (612) 673-6634

Richard (Rick) L. Marcantonio (1998) Senior Vice President, Industrial Ecolab Inc. Ecolab Center St. Paul, MN 55102 (651) 293-2252

Thomas R McBurney (1982)
McBurney Management Advisors
1710 International Centre
900 2nd Avenue South
Minneapolis, MN 55402
(612) 336-9678

Walter F Mondale (1997)
Partner, Dorsey & Whitney
Pillsbury Center South
220 South Sixth Street
Minneapolis, MN 55402
(612) 340-6307

William Pearce (1988) IDS Mutual Fund Group 901 Marquette Avenue South Suite 2810 Minneapolis, MN 55402 (612) 330-9287

Lawrence Perlman (1998)
Chairman & Chief Executive Officer
Ceridian Corporation
8100 34th Avenue South
Minneapolis, MN 55425-1640
(612) 853-8100

Ann Pflaum (1993)
Associate Dean/Continuing Education &
Extension
University of Minnesota
150 Westbrook Hall, 77 Pleasant St. SE
Minneapolis, MN 55455
(612) 626-1788

John A Rollwagen (1985-93) (1993) Venture Partner St Paul Venture Capital, Suite 1940 8500 Normandale Lake Blvd Bloomington, MN 55437 (612) 830-7472

Steven M Rothschild (1987) Twin Cities RISE! 112 North Third Street Minneapolis, MN 55401 (612) 338-0295

# MINNESOTA PUBLIC RADIO Page 3

Jeffrey Rotsch (1993)
Senior Vice President
Sales and Distribution
General Mills
One General Mills Blvd
Minneapolis, MN 55426
(612) 540-3522

Richard W Schoenke (1996)
President & CEO
Firstar Bank of MN
Firstar Center
101 E Fifth Street 14th Floor
Saint Paul, MN 55101
(651) 292-3955

David R Strand (1997)
President
Allina Medica Health Plans
5601 Smetana Drive
PO Box 9310
Minneapolis, MN 55440
(612) 992-3950

Ellen Sturgis (1996) 1819 Mount Curve Avenue Minneapolis, MN 55403 (612) 377-0909

Gretchen Taylor (1991) 55 North Hills Drive Mankato, MN 56001 (507) 625-1210

Patrick A Thiele (1997) 3 Edgcumbe Place St. Paul, MN 55116 (651) 690-4040 Nedra Wicks (1993) 5600 Stenbrae Court Rochester, MN 55902 (507) 282-9073

### LIFE TRUSTEES

Robert J Sivertsen (1968) 6767 Cottonwood Road Cushing, MN 56443 (612) 228-9909

or 29 Summit Court St. Paul, MN 55102 (651) 228-9909

Joanne Von Blon (1975-83) (1986) 1201 Yale Place, #2006 Minneapolis, MN 55403 (612) 370-0322

## HONORARY LIFE MEMBERS

Selected in appreciation of substantial services provided to Minnesota Public Radio over a long period of time. This honorary designation carries no rights, privileges or duties.

Earl Ewald (1972-1977) 7108 Cedarwood Circle Boulder, CO 80301

DATE: Denotes beginning of current term or current consecutive terms.

# MINNESOTA PUBLIC RADIO Page 4

### OTHER OFFICERS

The following persons are not members of the Board of Trustees of Minnesota Public Radio, but they are staff officers of the organization, appointed by the President under authority of the Board of Trustees:

Thomas J Kigin
Executive Vice President &
Chief Administrative Officer
Minnesota Public Radio
45 East Seventh Street
Saint Paul, MN 55101

Deborah Chernick
Vice President &
Chief Financial Officer
Minnesota Public Radio
445 Minnesota Street, Suite 500
Saint Paul, MN 55101

Donald Creighton
Vice President & Principal Executive
Officer, Technology
Minnesota Public Radio
45 East Seventh Street
Saint Paul, MN 55101

William Haddeland
Vice President & Principal Executive
Officer, Public Affairs
Minnesota Public Radio
45 East Seventh Street
Saint Paul, MN 55101

Dennis Hamilton
Vice President & Principal Executive
Officer, Broadcasting
Minnesota Public Radio
45 East Seventh Street
Saint Paul, MN 55101

Anne Hovland
Vice President & Principal Executive
Officer, Development
Minnesota Public Radio
45 East Seventh Street
Saint Paul, MN 55101

Jon McTaggart
Vice President & Principal Executive
Officer, New Media
Minnesota Public Radio
444 Cedar Street, Suite 1111
Saint Paul, MN 55101

William Buzenberg Vice President, News Minnesota Public Radio 45 East Seventh Street Saint Paul, MN 55101

Craig Curtis
Vice President, Programming
Minnesota Public Radio
45 East Seventh Street
Saint Paul, MN 55101

Julie Heupel
Vice President, Marketing
Minnesota Public Radio
45 East Seventh Street
Saint Paul, MN 55101

All of the Trustees and Officers are US citizens. Trustees of Minnesota Communications Group, who are appointed by the Board of Minnesota Communications Group, are on the Minnesota Public Radio Board by virtue of their role as Trustees of Minnesota Communications Group. All other Minnesota Public Radio Trustees are elected by the Minnesota Public Radio Board and are approved by the Minnesota Communications Group Board.

Jeffrey Brown is also an Australian citizen.

## MINNESOTA COMMUNICATIONS GROUP BOARD OF TRUSTEES

November 13, 1998

## Officers of the Board

Thomas R McBurney -- Chairman
David Strand -- Vice Chairman
William Pearce -- Secretary
Barry Lindquist -- Treasurer

## TRUSTEES

Ronald B Johnson (1998)
Vice President/General Merchandise
Manager for Home Decor
Target
33 South Sixth Street
Minneapolis, MN 55402
(612) 304-5991

Barry Lindquist (1995) Senior Vice President Churchill Capital Inc. 2400 Metropolitan Centre 333 South Seventh Street Minneapolis, MN 55402 (612) 673-6634

Thomas R McBurney (1987)
McBurney Management Advisors
1710 International Centre
900 2nd Avenue South
Minneapolis, MN 55402
(612) 336-9678

William Pearce (1994)
IDS Mutual Fund Group
Suite 2810
901 Marquette Avenue South
Minneapolis, MN 55402
(612) 330-9287

Steven M Rothschild (1996) Twin Cities RISE! 112 North Third Street Minneapolis, MN 55401 (612) 338-0295

Richard W Schoenke (1997)
President & CEO
Firstar Bank of Minnesota
Firstar Center
101 E Fifth Street 14th Floor
Saint Paul, MN 55101
(612) 292-3955

David R Strand (1997)
President
Allina Medica Health Plans
5601 Smetana Drive
PO Box 9310
Minneapolis, MN 55440
(612) 992-3950

### OTHER OFFICERS

William H. Kling President Minnesota Communications Group 444 Cedar Street, Suite 1900 Saint Paul, MN 55101 (651) 290-1555

Thomas Kigin
Executive Vice President
Minnesota Communications Group
444 Cedar Street, Suite 1900
Saint Paul, MN 55101
(651) 290-1554

Deborah Chernick
Vice President &
Chief Financial Officer
Minnesota Communications Group
444 Cedar Street, Suite 1900
Saint Paul, MN 55101
(651) 290-1540

Jon McTaggart
Vice President & Principal Executive Officer
Business Development
Minnesota Communications Group
444 Cedar Street, Suite 1900
Saint Paul, MN 55101
(651) 290-1281

Laura Neudecker
Vice President
Human Resources
Minnesota Communications Group
444 Cedar Street, Suite 1900
Saint Paul, MN 55101
(651) 290-1542

All Trustees and Officers are US Citizens.

## FCC Form 340

## Application for a Construction Permit for

- new Noncommercial Educational FM Station
- △ Fergus Falls, MN

## Minnesota Public Radio

## Exhibit 3, Page 1

Minnesota Public Radio holds licenses and/or construction permits for the following radio stations, all of which are operated on a noncommercial basis:

| CALL SIGN |    | COMMUNITY              |           |
|-----------|----|------------------------|-----------|
| KRSU      | FM | Appleton MN            | 91.3 MHz  |
| KNCM      | FM | Appleton MN            | 88.5 MHz  |
| KCRB      | FM | Bemidji MN             | 88.5 MHz  |
| KNBJ      | FM | Bemidji MN             | 91.3 MHz  |
| KBPR      | FM | Brainerd MN            | 90.7 MHz  |
| WIRN      | FM | Buhl, MN               | 92.5 MHz  |
| WSCN      | FM | Cloquet MN             | 100.5 MHz |
| KNSR      | FM | Collegeville MN        | 88.9 MHz  |
| KSJR      | FM | Collegeville MN        | 90.1 MHz  |
| KLCD      | FM | Decorah IA             | 89.5 MHz  |
| KLNI      | FM | Decorah IA             | 88.7 MHz  |
| WSCD      | FM | Duluth MN              | 92.9 MHz  |
| WGGL      | FM | Houghton MI            | 91.1 MHz  |
| KXLC      | FM | La Crescent MN         | 91.1 MHz  |
| KSJN      | FM | Minneapolis MN         | 99.5 MHz  |
| KCCD      | FM | Moorhead MN            | 90.3 MHz  |
| KCCM      | FM | Moorhead MN            | 91.1 MHz  |
| KLSE      | FM | Rochester MN           | 91.7 MHz  |
| KZSE      | FM | Rochester MN           | 90.7 MHz  |
| KRSD      | FM | Sioux Falls SD         | 88.1 MHz  |
| KNOW      | FM | Minneapolis/St Paul MN | 91.1 MHz  |

# FCC Form 340 Application for a Construction Permit for new Noncommercial Educational FM Station La Fergus Falls, MN

## Minnesota Public Radio

Exhibit 3, Page 2

| CALL SIGN |    | COMMUNITY               |       |     |
|-----------|----|-------------------------|-------|-----|
| KGAC      | FM | St Peter MN             | 90.5  | MHz |
| KNGA      | FM | St Peter MN             | 91.5  | MHz |
| KWRV      | FM | Sun Valley ID           | 91.9  | MHz |
| KNTN      | FM | Thief River Falls MN    | 102.7 | MHz |
| KQMN      | FM | Thief River Falls MN    | 91.5  | MHz |
| WIRR      | FM | Virginia/Hibbing MN     | 90.9  | MHz |
| KNSW      | FM | Worthington/Marshall MN | 91.7  | MHz |
| KRSW      | FM | Worthington MN          | 89.3  | MHz |

In addition, MPR owns and operates WMNN(AM) in Minneapolis/Saint Paul at 1330 MHz, which is operated on a commercial basis.

Minnesota Public Radio holds licenses or construction permits for the following noncommercial educational FM translators:

| CALL SIGN | COMMUNITY       |
|-----------|-----------------|
| K280EB    | Albert Lea MN   |
| K215BL    | Alexandria MN   |
| K280EF    | Austin MN       |
| K277AD    | Austin MN       |
| K208CR    | Ely, MN         |
| W269AC    | Ely MN          |
| K209BA    | Fergus Falls MN |
| K281AB    | Grand Rapids MN |
| K297AD    | Grand Rapids MN |
| W224AO    | Houghton MI     |

FCC Form 340
Application for a Construction Permit for new Noncommercial Educational FM Station

— Fergus Falls, MN

## Minnesota Public Radio

Exhibit 3, Page 3

| CALL SIGN | COMMUNITY              |
|-----------|------------------------|
| K201CN    | International Falls MN |
| K249BK    | International Falls MN |
| K201BW    | La Crescent MN         |
| K289AE    | Owatonna MN            |
| K280EC    | Owatonna MN            |
| W215AI    | Roseau MN              |
| K270AB    | Winona MN              |
| K299AB    | Winona MN              |
|           |                        |

Minnesota Public Radio has the following Instructional Television Fixed Service (ITFS) licenses or construction permits:

| CALL SIGN | COMMUNITY      | CHANNEL GROUP |
|-----------|----------------|---------------|
| WHR-751   | Duluth MN      | G1,G2,G3,G4   |
| WHR-765   | Fargo ND       | C1,C2,C3,C4   |
| WHR-754   | Mankato MN     | A1,A2,A3,A4   |
| WLX-299   | Minneapolis MN | A1,A2,A3,A4   |
| WHR-753   | Rochester MN   | B1,B2,B3,B4   |
| WHR-752   | Sioux Falls MN | B1,B2,B3,B4   |
| WHR-497   | St Paul MN     | B1,B2,B3,B4   |
| WHR-750   | St Cloud MN    | B1,B2,B3,B4   |

Prepared by Mitzi Gramling FCC Form 340 Application for a Construction Permit for a Noncommercial Educational FM Station in Fergus Falls, Minnesota

Minnesota Public Radio

EXHIBIT 3, Page 4

#### PENDING APPLICATIONS

WGGL (FM). Houghton, MI (FCC File No. BMLED-961108KA and main studio rule waiver request)

KLSE (FM). Rochester. MN (FCC File No. BLED-980504KG)

Translator Station K299AB, Winona, MN (FCC File No. 971126TN)

ITFS Station WHR-754 Mankato, MN (FCC File Nos. BRIF-970203ET and BMPLIF-980127DA)

ITFS Station WHR-751, Duluth, MN (FCC File No. BRIF-970203EU)

ITFS Station WHR-752, Sioux Falls, MN (FCC File No. BMPLIF- 980623DA)

New Station in Austin. MN (FCC File No. BPED-980603MB)

New Translator Station in Worthington, MN (filed 11/10/98; no FCC File No. assigned yet)

Translator Station K280EC, Owatonna. MN (STA request to remain silent)

Translator Station K289AE, Owatonna, MN (STA request to remain silent)

ITFS Station WHR-753. Rochester, MN (FCC File Nos. BMPLIF-980910DZ and BMPLIF-980825DE)

ITFS Station WHR-497, Saint Paul. MN (FCC File No. BMPLIF-980818DN)

KNSW (FM) & KRSW (FM). Worthington, MN (Main Studio rule waiver requests)

WMNN (AM) - (FCC File No. BL-981112AB)

New station in Brainerd, MN (FCC File No.BPED-981113MC)

New station in Fergus Falls, MN (application filed 11/20/98; FCC file number not assigned yet)

New station in Grand Marais, MN (application filed 12/4/98; FCC file numbers not assigned yet)

An application on FCC Form 340 for a new station in Grand Marais, MN is being filed simultaneously herewith.

FCC Form 340
Application for a Construction Permit for a Noncommercial Educational FM Station in Fergus Falls, Minnesota

Minnesota Public Radio

**EXHIBIT 4, Page 1** 

Refers to Section IV

Attached is a copy of a program schedule which closely resembles the program schedule that would be broadcast by the proposed station. This schedule is for the Minnesota Public Radio Regional Network classical music service—currently broadcast over KRSU (FM) in Appleton, MN, KCRB (FM) in Bemidji, MN, KBPR (FM) in Brainerd, MN, KLCD (FM) in Decorah, IA, WSCD (FM) in Duluth, MN, KSJN (FM) in Minneapolis/Saint Paul, MN, KCCM (FM) in Moorhead/Fargo, MN, KLSE (FM) in Rochester, MN, KSJR (FM) in Collegeville, MN, KGAC (FM) in Saint Peter/Mankato, MN, KRSD (FM) in Sioux Falls, SD, KWRV in Sun Valley, ID, WIRR (FM) in Virginia, MN, KRSW (FM) in Worthington, MN and KQMN (FM) in Thief River Falls, MN— for the month of November, 1998. This schedule appears in the program guide contained in MINNESOTA MONTHLY magazine, which is sent to listener members of Minnesota Public Radio, and appears on the Minnesota Public Radio website at www.mpr.org.

The schedule contains a stunning array of arts, culture and entertainment programming, representing the best radio being produced in the world—by National Public Radio, by the producers of Public Radio International, by the British Broadcasting Corporation on their World Service, by the Canadian Broadcasting Corporation, by independent producers from all over the US and around the world, and by Minnesota Public Radio's own network staff.

Minnesota Public Radio's staff of music programmers, producers and announcers represents one of the strongest cultural programming groups in broadcasting, works from a huge library of more than 40,000 compact discs, and produces a wide variety of music programs distributed nationally, including broadcasts by the Minnesota Orchestra and St. Paul Chamber Orchestra, holiday and other specials, including the annual live broadcast of the Festival of Lessons and Carols from the Chapel of King's College, Cambridge, and the multiple award-winning series St. Paul Sunday and Pipedreams. In addition, Minnesota Public Radio produces and distributes Classical 24â, the nation's only live 24-hour satellite classical music service, which is heard on more than 300 public radio stations, including Minnesota Public Radio's classical music service stations.

FCC Form 340
Application for a Construction Permit for a Noncommercial Educational FM Station in Fergus Falls, Minnesota

Minnesota Public Radio

**EXHIBIT 4, Page 2** 

Refers to Section IV

## PROGRAMMING POLICIES AND OBJECTIVES

- 1. To provide the best possible cultural and arts services suitable for a public educational broadcasting station.
- To reflect the variety and richness of the region, including its political, economic
  and cultural life, its ethnic diversity, history and its educational accomplishments,
  by using a full range of radio techniques.
- 3. To develop strong identification with the region, through feedback techniques, research, outreach programs, remote broadcasts, etc.
- 4. To make the most efficient use of available network and syndication material.
- 5. To provide regular information at set times in network programs as part of the service for the audience.
- 6. To create a forum of ideas, opinion and talent from across the region and nation.
- To present established and new artists, performers, musicians and writers and their works.
- 8. To enhance listeners' understanding of the world.

Prepared by Mitzi T Gramling

## Classical Music Schedule »)

KSJN 99.5fm Minneapolis/St. Paul

KRSU 91.3fm Appleton • KCRB 88.5fm Bemidji • KBPR 90.7fm Brainerd • KLCD 89.5fm Decorah, M • WSCD 92.9fm Duluth/Superior KCCM 91.1fm Fargo/Moorhead • KLSE 91.7fm Rochester/Austin/Winona • KSJR 90.1fm St. Cloud/Collegeville • KGAC 98.5fm St. Peter/Mankato KRSD 88.1fm Sionx Falls, SD • KWRV 91.9fm Sun Valley, ID • KQMN 91.5fm Thief River Falls • W1RR 90.9fm Virginia/Hibbing KRSW 88.3fm Worthington/Marshall

| 5 AM         | Monday Tuesday Wednesday Thursday   | Friday                 | Saturday                                | Sunday                                       | 5 AM                 |  |  |  |
|--------------|---|------------------------|---|--|----------------------|--|--|--|
| 6 AM         | Music Through the Night® with Jeff Esworthy and Brandi Parisi                               |                        |   |  |                      |  |  |  |
| 7 AM<br>8 AM | The Morning Shaw with Dale Connelly and Jim Ed Poole  | -                      |   | Classical<br>Music<br>with<br>Brian Hewbouse | 6 AM<br>7 AM<br>8 AM |  |  |  |
| 9 AM         |   |                        | Classical<br>Music<br>with              |  | MA @                 |  |  |  |
| 10 AM        |   |                        | Brian Newhouse                          | Saint Paul Sunday"<br>with Bill McGlaughlin  | 10 AM                |  |  |  |
| 11 AM        | Classical Music with Lynne Warfel-Hoft  |                        |   | Classical Music                              | 11 AM                |  |  |  |
| NOON         |   |                        |   | CIETACEI BIOTIC                              | NOON                 |  |  |  |
| 1 PM         |   |                        | -                                       |  | 1 PM                 |  |  |  |
| 2 PM         | Classical Music with Julie Amacher  |                        | Classical Music<br>with<br>Arthur Hoeka | Saint Paul<br>Chamber<br>Orchestra           | 2 PM<br>3 PM         |  |  |  |
| 4 PM         |   | <del></del>            | <u> </u>                                |  |                      |  |  |  |
|              |   | <b>建</b>               | Schickele Mix                           | Classical Music                              | 4 PM                 |  |  |  |
| 5 PM<br>6 PM | Classical Music with John Birge   |                        | A Prairie Home<br>Companion®            |  | 5 PM<br>6 PM         |  |  |  |
| 7 PM         |   |                        | Garrison Keillor                        |  | 7 PM                 |  |  |  |
| 8 PM         | Evening Classics<br>(featuring the "Classic du Jour")<br>with Louise Value and Arthur Hoeks | <u> </u>               | THE JAZZ                                | The Opera<br>with<br>Silvester Vicio         | 8 PM                 |  |  |  |
| 9 PM         |   | Minnesota<br>Orchestra | with<br>Leigh Kemmen                    | !  | 9 PM                 |  |  |  |
| 10 PM        | Classical Music with Bob Christianson   | Classical              | Classical Music                         | Pipedreams*                                  | 10 PM                |  |  |  |
| 11 PM        |   | Music                  | with Louise Yahle                       | Mickeel Barone  Music from the               | 11 PM                |  |  |  |
| 12 AM        |   |                        |   | Hearts of Space                              | 12 AM                |  |  |  |
| 1 AM         |   |                        | <b>.</b>                                |  | 1 AM                 |  |  |  |
| 2 AM         | Music Through the Ni Weeknights with Jeff Esse Weeknds with Brandi Pa                       | orthy                  |   |  | 2 AM                 |  |  |  |
| 3 AM         | Housids with bland to   | er est                 | . *                                     |  | 3 AM                 |  |  |  |
| 4 AM         |   |                        |   |  | 4 AM                 |  |  |  |
| 5 AM         |   |                        |   |  | SAM                  |  |  |  |

Schedule subject to change. Local station schedules may vary.

Schedule

10

11

18

| SECTION V-B - FM BROADCAST ENGINEERING DATA   |  |   |  | FOR COMMISSIO<br>File No.<br>SSB Referral Date<br>Referred By |  |   |   |
|---|--|---|--|---|--|---|---|
| Name of A   | pplicant M                                     | innesota Publi  | ic Radio   |   |  |   | <del></del>   |
| Call Letters (if issued)  Is this application being filed in respectible filing window?  TBA  If Yes, specify closing date: |  |   |  |   | n response to an applic  | ation                                       | Yes X No  |
| Purpose of  | Application:                                   | (check appropriate  | baxes)   |   |  |   |   |
| □ s<br>M  | ee Ex #El<br>odify existing                    | (main) facility , Engineering ; construction permi                        | Statement<br>it for main facility  | M bs  | onstruct a new auxiliar<br>lodify existing constructions<br>ackup facility<br>lodify licensed auxilian | ction permit for a                          | uxiliary  |
| If purpose  | is to modify,                                  | indicate below the n  | ature of change(s) and   | specify the   | e file number(s) of the  | authorizations at                           | ffected.  |
| □ A   | ntenna suppo:                                  | rting structure heigh   | t  | ☐ E   | ffective radiated power  | r   |   |
| □ A   | ntenna height                                  | above average term  | in   | ☐ F   | requency   |   |   |
|   | ntenna locatio                                 | on  |  | □с  | lass   |   | ₹.  |
|   | iain Studio lo<br>3.1125(b)(2)                 | cation per 47 C.F.R.  | Section  |   | ne-Step processing   |   |   |
|   | irectional Antimber(s)                         | enna  |  | ↓↓ o<br>  | ther(summarize briefly   | )   |   |
| 1. Alloc  | ation:   |   |  |   |  | <del></del>                                 |   |
| Channel N   |  | Principal c   | ommunity to be served  |   | [175]  | (check only one                             | bax below)  |
| 209   | County<br>Ott                                  | er Tail   | City or Town<br>Fergus Falls   | S   | MN F   |   | лв ∟асз<br>]с                                       |
| (a)   | landmark.  2 miles N  Geographica array. Other | ess, city, county a  of Fergus Fa  coordinates (to ne wise, specify tower | nd state. If no address  11s, MN. Approx  arest second). If more location. Specify Sour be presumed. (The Co | inters<br>inted on el   | distance and bearing ection I-94 and lement of an AM array and East Longitude v                        | relative to the US Hwy 59. , specify coordi | nearest town or nates of center of otherwise, North |
| Latitude  | 46   | o 19  | · 16 •   | Longitu   | de 96 º  | 05 '  | 36 •  |

| If Yes, provide the seven digit registration number and proceed to item 8.  1024698  4. Has the owner of the antenna structure filed an application for registration with the Commission?  If yes, provide the date FCC Form 854 was filed and proceed to item 8.  5. Applicant certifies that antenna structure meets 6.10 meter (20 feet) exception rule and therefore does not require registration. In other words, the overall height of the entire structure is not more than 6.10 meters (20 feet) above a man-made structure (structure built for a purpose other than mounting an antenna, i.e., building, water tank, silo, fire tower, etc.).  If yes, skip items 6 and 7.  6. Antenna structure will be shielded by existing structures of a permanent and substantial character or by natural terrain or topographic features of equal or greater height, and would be located in the congested area of a city, town or settlement where it is evident beyond all reasonable doubt that the structure is so shielded that it will not adversely affect safety in air navigation.  If yes, submit as an Exhibit a detailed explanation and/or diagram to support your claim and skip to item 8.  7. Antenna structure does not meet FAA notification criteria as defined under 47 C.F.R. Section 17.7 and therefore does not require registration.  8. Is the supporting structure the same as that of another station(s) or proposed in another pending | ) No       |
|--|------------|
| Has the owner of the antenna structure filed an application for registration with the Commission?  If yes, provide the date FCC Form 854 was filed and proceed to item 8.  Applicant certifies that antenna structure meets 6.10 meter (20 feet) exception rule and therefore does not require registration. In other words, the overall height of the entire structure is not more than 6.10 meters (20 feet) above the ground or the antenna does not extend more than 6.10 meters (20 feet) above a man-made structure (structure built for a purpose other than mounting an antenna, i.e., building, water tank, silo, fire tower, etc.).  If yes, skip items 6 and 7.  Antenna structure will be shielded by existing structures of a permanent and substantial character or by natural terrain or topographic features of equal or greater height, and would be located in the congested area of a city, town or settlement where it is evident beyond all reasonable doubt that the structure is so shielded that it will not adversely affect safety in air navigation.  If yes, submit as an Exhibit a detailed explanation and/or diagram to support your claim and skip to item 8.  Antenna structure does not meet FAA notification criteria as defined under 47 C.F.R. Section 17.7 and therefore does not require registration.  |            |
| If yes, provide the date FCC Form 854 was filed and proceed to item 8.  Applicant certifies that antenna structure meets 6.10 meter (20 feet) exception rule and therefore does not require registration. In other words, the overall height of the entire structure is not more than 6.10 meters (20 feet) above a man-made structure (structure built for a purpose other than mounting an antenna, i.e., building, water tank, silo, fire tower, etc.).  If yes, skip items 6 and 7.  Antenna structure will be shielded by existing structures of a permanent and substantial character or by natural terrain or topographic features of equal or greater height, and would be located in the congested area of a city, town or settlement where it is evident beyond all reasonable doubt that the structure is so shielded that it will not adversely affect safety in air navigation.  If yes, submit as an Exhibit a detailed explanation and/or diagram to support your claim and skip to item 8.  Antenna structure does not meet FAA notification criteria as defined under 47 C.F.R. Section 17.7 and therefore does not require registration.   |            |
| Applicant certifies that antenna structure meets 6.10 meter (20 feet) exception rule and therefore does not require registration. In other words, the overall height of the entire structure is not more than 6.10 meters (20 feet) above a man-made structure (structure built for a purpose other than mounting an antenna, i.e., building, water tank, silo, fire tower, etc.).  If yes, skip items 6 and 7.  Antenna structure will be shielded by existing structures of a permanent and substantial character or by natural terrain or topographic features of equal or greater height, and would be located in the congested area of a city, town or settlement where it is evident beyond all reasonable doubt that the structure is so shielded that it will not adversely affect safety in air navigation.  If yes, submit as an Exhibit a detailed explanation and/or diagram to support your claim and skip to item 8.  Antenna structure does not meet FAA notification criteria as defined under 47 C.F.R. Section 17.7 and therefore does not require registration.   |            |
| not require registration. In other words, the overall height of the entire structure is not more than 6.10 meters (20 feet) above the ground or the antenna does not extend more than 6.10 meters (20 feet) above a man-made structure (structure built for a purpose other than mounting an antenna, i.e., building, water tank, silo, fire tower, etc.).  If yes, skip items 6 and 7.  Antenna structure will be shielded by existing structures of a permanent and substantial character or by natural terrain or topographic features of equal or greater height, and would be located in the congested area of a city, town or settlement where it is evident beyond all reasonable doubt that the structure is so shielded that it will not adversely affect safety in air navigation.  If yes, submit as an Exhibit a detailed explanation and/or diagram to support your claim and skip to item 8.  Antenna structure does not meet FAA notification criteria as defined under 47 C.F.R. Section 17.7 and therefore does not require registration.   |            |
| Antenna structure will be shielded by existing structures of a permanent and substantial character or by natural terrain or topographic features of equal or greater height, and would be located in the congested area of a city, town or settlement where it is evident beyond all reasonable doubt that the structure is so shielded that it will not adversely affect safety in air navigation.  If yes, submit as an Exhibit a detailed explanation and/or diagram to support your claim and skip to item 8.  Antenna structure does not meet FAA notification criteria as defined under 47 C.F.R. Section 17.7 and therefore does not require registration.  | א <b>ב</b> |
| natural terrain or topographic features of equal or greater height, and would be located in the congested area of a city, town or settlement where it is evident beyond all reasonable doubt that the structure is so shielded that it will not adversely affect safety in air navigation.  If yes, submit as an Exhibit a detailed explanation and/or diagram to support your claim and skip to item 8.  Antenna structure does not meet FAA notification criteria as defined under 47 C.F.R. Section 17.7 and therefore does not require registration.   | א [<br>_   |
| item 8.  7. Antenna structure does not meet FAA notification criteria as defined under 47 C.F.R. Section 17.7 and therefore does not require registration.   | ]          |
| therefore does not require registration.   | _          |
| B. Is the supporting structure the same as that of another station(s) or proposed in another pending Yes   | א ב        |
| application(s)?  | J N        |
| If Yes, give call letter(s) or file number(s) or both. MPR Channel 218 application to be filed.  |            |
| If proposal involves a change in height of an existing structure, specify existing height above ground level including at all other appurtenances, and lighting, if any.   | itenna     |
| 9. Does the application propose to correct previous site coordinates?  If Yes, list old coordinates.   | X N        |
| Latitude o Longitude o   | •          |
| 10. Has the FAA been notified of the proposed construction?  | וב         |
| If Yes, give date and office where notice was filed and attach as an Exhibit a copy of FAA determination, if available.  |            |
| Date Office where filed  |            |
|  |            |
| 11. List all landing areas within 8 km of antenna site. Specify distance and bearing from structure to nearest point of the  |            |
| 11. List all landing areas within 8 km of antenna site. Specify distance and bearing from structure to nearest point of the  |            |

## Section V-B - FM BROADCAST ENGINEERING DATA (Page 3)

| 12. | (a) Elevation: (to the nearest meter) |   |  |                    |        |
|-----|---------------------------------------|---|--|--------------------|--------|
|     |                                       | <b>(i)</b>                                      | Of the site above mean sea level;  | 384 meter          | rs.    |
|     |                                       | (2)   | Of the top of supporting structure above ground (including antenna, all other appurtenances,—and lighting, if any); and  | 107 meter          | rs     |
|     |                                       | (3)   | Of the top of supporting structure above mean sea level [(a)(1) + (a)(2)].   | 4 <u>91</u> meter  | rs     |
|     | <b>(b)</b>                            | Hei   | ght of radiation center: (to the nearest meter) H = Horizontal; V = Vertical   |                    |        |
|     |                                       | (1)   | Above ground; —  | 61 meter           | rs (H) |
|     |                                       |   | <del>-</del> -   | 61 mete            | rs (V) |
|     |                                       | (2) Above mean sea level [(a)(1) + (b)(1)]; and | Above mean sea level [(a)(1) + (b)(1)]; and  | 445 mete           | rs (H) |
|     |                                       |   | (3) Above average terrain.   | 445 mete           | rs (V) |
|     |                                       | (3)   |  | 69 mete            | rs (H) |
|     |                                       | ` '   |  | 69 mete            | rs (V) |
| 13. | 12 :                                  | above   | s an Exhibit sketch(es) of the supporting structure, labeling all elevations required in Question e, except item 12(b)(3). If mounted on an AM directional array element, specify heights and one of all array towers, as well as location of FM radiator. | Exhibit No.<br>E2  |        |
| 14. | Effe                                  | ective  | Radiated Power:  |                    |        |
|     | (a)                                   | ER  | P in the horizontal plane $\frac{2.7}{\text{kw (H}^{\bullet})} = \frac{2.7}{\text{kw (V}^{\bullet})}$  |                    |        |
|     |                                       | İst   | peam tilt proposed?  | Yes X              | No     |
|     |                                       |   | es, specify maximum ERP in the plane of the tilted beam, and attach as an Exhibit a vertical vation plot of radiated field.  | Exhibit No.<br>N/A |        |
|     |                                       | *P  | plarization  |                    | 1      |
| 15. | Is a                                  | dire  | ctional antenna proposed?  | Yes X              | No     |
|     | plo                                   | t(s),   | attach as an Exhibit a statement with all data specified in 47 C.F.R. Section 73.316, including and tabulations of horizontally and vertically polarized radiated components in terms of field.  | Exhibit No.<br>N/A |        |
| 16  | . Wi                                  | ill the   | main studio be located within the 70 dBu or 3.16 mV/m contour?   | Yes X              | No     |
|     | If                                    | No, a   | ttach as justification an Exhibit pursuant to 47 C.F.R. Section 73.1125.   | Exhibit No.<br>E3  |        |

| 17. | Are there: (a) within 60 meters of the proposed a transmitters, or any nonbroadcast (except citizens be blanketing contour, any established commercial or facilities, or populated areas; or (c) within ten (10) kil authorized FM or TV transmitters which may produce                | and or amateur) radio stations; or (b) within the<br>government receiving stations, cable head-en-<br>ometers of the proposed antenna, any protected of | e<br>d          |  |  |  |  |  |
|-----|--|---|-----------------|--|--|--|--|--|
|     | If Yes, attach as an Exhibit a description of any expension steps to be pursued f necessary, and a statement accept objectionable interference (including that caused by a facilities in existence or authorized or to radio received C.F.R. Section 73.315(b), 73.316(d) and 73.318.) | oting full responsibility for the elimination of an receiver-induced or other types of modulation) to   | y E4 O          |  |  |  |  |  |
| 18, | Attach as an Exhibit a 7.5 minute series U.S. Geolahows clearly, legibly, and accurately, the location must comply with the requirements set forth in Inst clearly and legibly display the original printed contour markings, and must bear a scale of distance in kilometers.         | of the proposed transmitting antenna. This ma<br>ruction D for Section V. Further, the map mu-<br>ur lines and data as well as latitude and longitud    | p <u>E3</u>     |  |  |  |  |  |
| 19. | Attach as an Exhibit (name the source) a map which original printed latitude and longitude markings and a  | •   | the Exhibit No. |  |  |  |  |  |
|     | (a) The proposed transmitter location, and the radials along with profile graphs have been prepared;   |   |                 |  |  |  |  |  |
|     | (b) The 1 mV/m predicted contour and, for non commercial channel, the 3.16 mv/m contour; and   |   | n a             |  |  |  |  |  |
|     | (c) The legal boundaries of the principal community  | y to which the station is or will be licensed.  |                 |  |  |  |  |  |
| 20. | Specify area in square kilometers (1 sq. mi. = 2.59 predicted 1 mv/m contour.  | sq. km.) and population (latest census) within the  | ne .            |  |  |  |  |  |
|     | Area1,119 sq. km.  | Population 19,221   |                 |  |  |  |  |  |
| 21. | Attach as an Exhibit a map (Sectional Aeronautical proposed 1 mv/m (60 dbu) contours.  | charts where obtainable) showing the present at   | nd              |  |  |  |  |  |
|     | Enter the following from Exhibit above:  | Gain Area N/A sq. km.   |                 |  |  |  |  |  |
|     | % <sup>16</sup>  | Loss Area sq. km.  Present Area sq. km.   |                 |  |  |  |  |  |
|     | Percent change (gain area plus loss area as divided by present area times 100%)  100Z New station  |   |                 |  |  |  |  |  |
| •   | If 50% or more, this constitutes a major change. Inc. 47 C.F.R. Section 73.3573(a)(1).)  | <del></del> -   |                 |  |  |  |  |  |

| Section A-R - kM R                | RUADCAST ENGINEERING DAT   | A (Page 5)   |                                |  |
|-----------------------------------|--|--|--------------------------------|--|
| Aeronautical C                    | ion involving an auxiliary backup fa<br>hart or equivalent) which shows clea-<br>ings and a scale of distance in kilomet | rly, legibly, and accurately, and with                                     | ap (Sectional latitude and     | Exhibit No.<br>N/A                     |
| (a) the propos                    | sed auxiliary 1 mv/m contour; and  |  |                                |  |
|                                   | /m contour of the licensed main fa<br>Also specify the file number of the li   |  |                                |  |
| File No.                          |  |  |                                |  |
| 23. Terrain and cov               | erage data (to be calculated in accord   | lance with 47 C.F.R. Section 73.313)                                       |                                |  |
| Source of terrai                  | in data: (check only one box below)  |  |                                |  |
| Linearly i                        | nterpolated 30-second database   | 7.5 minute topograph   | hic map                        |  |
| (Source:                          |  | <del>)</del>   |                                |  |
| Linearly i                        | nterpolated 3-second database  | Other (summarize)  |                                |  |
|                                   | eight radials being used to calculate H  | AAT?   | Į                              | X Yes 🗆                                |
| If Yes, specify start with the 0  | how many radials are being used. I degree radial.  | Please note the radials must be evenl                                      | y spaced and                   | 36                                     |
| Radial bearing                    | Height of radiation<br>center above average<br>elevation of radial   | Predicted Distances<br>to the 1 mV/m contour                               | Ċ                              | on Commercial<br>hannel<br>v/m contour |
| (degrees True)                    | from 3 to 16 km<br>(meters)  | (kilometers)   | (kil                           | ometers)                               |
| 0                                 | *  | *  | ,                              | *                                      |
| 45                                | *See Ex #El, Pg #4   | *  |                                | *                                      |
| 90                                | *  | *  |                                | *                                      |
| 135                               |  |  |                                | · · · · · · · · · · · · · · · · · · ·  |
| 180                               |  |  |                                |  |
| 225                               |  |  |                                |  |
| 270                               |  |  | 1                              |  |
| 315                               |  |  |                                | ·                                      |
| <u> </u>                          |  | Allocation Studies oart C of 47 C.F.R. Part 73)                            |                                |  |
| 24. Is the propose United States: | d antenna location within 320 kilome and Mexico?   | ters (199 miles) of the common bord  | er between the                 | Yes X                                  |
| United States                     | as an Exhibit a showing of compliand of America and the United Me  | ce with all provisions of the Agreeme<br>exican States concerning Frequenc | nt between the<br>y Modulation | Exhibit No.<br>N/A                     |
| Broadcasting:                     | in the 88 to 108 MHz band.   |  |                                | FCC 340 (Pag                           |

FCC 340 (Page 17) July 1997

| Secu | MU A-            | D- FM BRUADCASI ENGINEERING DATA (Page 6)  |                    |    |       |
|------|------------------|--|--------------------|----|-------|
| 25.  | Is the<br>State: | proposed antenna location within 320 kilometers of the common border between the United s and Canada?  | X Yes [            | Ли | io .  |
|      | Alloc            | s, attach as an Exhibit a showing of compliance with all provisions of the Working Agreement for attach as an Exhibit a showing of compliance with all provisions of the Working Agreement for attach as an Exhibit a showing of compliance with all provisions of the Working Agreement for attach as an Exhibit a showing of compliance with all provisions of the Working Agreement for attach as an Exhibit a showing of compliance with all provisions of the Working Agreement for attach as an Exhibit a showing of compliance with all provisions of the Working Agreement for attach as an Exhibit a showing of compliance with all provisions of the Working Agreement for attach as an Exhibit a showing of compliance with all provisions of the Working Agreement for attach as an Exhibit a showing of compliance with all provisions of the Working Agreement for attach as a state of the Canada-United States FM ement of 1947. | Exhibit No.<br>N/A |    |       |
| 26.  | 201 trange       | proposed operation is for a full service or Class D facility for a channel in the range from Channel through 220 (88.1 through 91.9 MHz), or if this proposed operation is for a Class D station in the from Channel 221 through 300 (92.1 through 107.9 MHz), attach as an Exhibit a complete ation study to establish the lack of prohibited overlap of contours with other U.S. stations. The ation study should include the following:   | Exhibit No.<br>E7  |    |       |
|      |                  | The normally protected interference-free and the interfering contours for the proposed operation along all azimuths;   |                    |    |       |
|      | (ь)              | Complete normally protected interference-free contours of all other proposals and existing stations to which objectionable interference would be caused;   |                    |    |       |
|      | (c)              | Interfering contours over pertinent arcs of all other proposals and existing stations from which objectionable interference would be received;   |                    |    |       |
|      | (d)              | Normally protected and interfering contours over pertinent arcs, of all other proposals and existing stations, which require study to show the absence of objectionable interference;  | -                  |    |       |
|      | (e)              | Plot of the transmitter location of each station or proposal requiring investigation, with identifying call letters, file numbers and operating or proposed facilities;  |                    |    |       |
|      | <b>(f)</b>       | When necessary to show more detail, an additional allocation study will be attached utilizing a map with a larger scale to clearly show interference or absence thereof;   |                    |    |       |
|      | (g)              | A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire Exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified; and   |                    |    |       |
|      | <b>(h)</b>       | The name of the map(s) used in the Exhibit(s).   |                    |    |       |
| 27.  | info             | regard to any stations separated by 53 or 54 channels (10.6 or 10.8 MHz), attach as an Exhibit rmation required in 1/ (separation requirements involving intermediate frequency (i.f.) reference).   | Exhibit No.<br>E 7 |    |       |
| 28.  | (a)              | Is the proposed operation on Channel 218, 219 or 220?  | Yes                | X  | No    |
|      | (b)              | If the answer to (a) is Yes, does the proposed operation satisfy the requirements of 47 C.F.R. Section 73.207?   | ☐ Yœ               |    | No N/ |
|      | (c)              | If the answer to (b) is Yes, attach as an Exhibit information required in 1/regarding separation requirements with respect to stations on Channels 221, 222 and 223.   | Exhibit No<br>N/A  |    |       |
|      | (d)              | If the answer to (b) is No, attach as an Exhibit a statement describing the short spacing(s) and how it or they arose.   | Exhibit No<br>N/A  | ,  |       |
|      |                  |  |                    |    |       |

1/ A showing that the proposed operation meets the minimum distance separation requirements of 47 C.F.R. Section 73.507. Include existing stations, proposed stations, and cities which appear in the Table of Allotments; the location and geographic coordinates of each antenna, proposed antenna or reference point, as appropriate; and distance to each from proposed antenna

## Section V-B - FM BROADCAST ENGINEERING DATA (Page 7)

|     | +           | CO1             | authorization pursuant to 47 C.F.R. Section 73.215 is requested, attach as an Exhibit a implete engineering study to establish the lack of prohibited overlap of contours involving ected stations. The engineering study must include the following:  | Exhibit No.<br>N/A |      |
|-----|-------------|-----------------|--|--------------------|------|
|     |             | (1)             | Protected and interfering contours, in all directions (360 degrees), for the proposed operation;   |                    |      |
|     |             | (2)             | Protected and interfering contours, over pertinent arcs, of all short-spaced assignments, applications and allotments, including a plot showing each transmitter location, with identifying call letters or file numbers, and indication of whether facility is operating or proposed. For vacant allotments, use the reference coordinates as transmitter location;                                       |                    |      |
|     | ,           | (3)             | When necessary to show more detail, an additional allocation study utilizing a map with a larger scale to clearly show prohibited overlap will not occur;  |                    |      |
|     |             | (4)             | A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire Exhibit(s) (Sufficient lines should be shown so that the location of the sites may be verified.); and   |                    |      |
|     |             | (5)             | The official title(s) of the map(s) used in the Exhibit(s).  |                    |      |
| 29. | and t       | he propo        | sed station for a channel in the range from Channel 201 to 220 (88.1 through 91.9 MHz) used antenna location within the distance to an affected TV Channel 6 station(s) as defined Section 73.525?   | X Yes              | No   |
|     | map         | and an          | as an Exhibit either a TV Channel 6 agreement letter dated and signed by both parties or a engineering statement with calculations demonstrating compliance with 47 C.F.R. Section ich affected TV Channel 6 station.  | Exhibit No.<br>E8  | ]    |
| 30. | Is the      | propos          | ed station for a channel in the range from Channel 221 to 300 (92.1 through 107.9 MHz)?  | Yes X              | No   |
|     | IfYe        | s, attach       | as an Exhibit information required in 1/. (Except for Class D (secondary) proposals.)  | Exhibit No.<br>N/A | ]    |
| 31. | Envi        | ronment         | al Statement. (See 47 C.F.R. Section 1.1301 et seq.)   |                    |      |
| •   | (a)         | Would<br>may ha | a Commission grant of this application come within 47 C.F.R. Section 1.1307, such that it we a significant environmental impact?   | Yes X              | ] No |
|     |             |                 | answer Yes, submit as an Exhibit an Environmental Assessment required by 47 C.F.R. 1.1311.   | Exhibit No.        | ]    |
|     | <b>(</b> b) | If No, o        | explain briefly why not.   |                    |      |
|     |             |                 | Existing authorized tower.   |                    |      |
| •   | (c)         | taken t         | nt to OST/OET Bulletin No. 65, the applicant must explain in an Exhibit what steps will be so limit the RF radiation exposure to the public and to persons authorized access to the site. In addition, where there are multiple contributors to radiofrequency radiation, you ertify that the established RF radiation exposure procedures will be coordinated with all See Ex #E9 for RF Hazard Statement |                    |      |
|     |             |                 |  |                    |      |

## **CERTIFICATION**

I certify that I have prepared this Section of this application 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 (Typed or Printed) Douglas L. Vernier | Relationship to Applicant (e.g., Consulting Engineer) Technical Consultant |  |  |
|--|--|--|--|
| Signature Land on RV ever                  | Address (include ZIP Code) 1600 Picturesque Dr., Cedar Falls, IA 5061      |  |  |
| Date<br>November 16, 1998                  | Telephone No. (include Area Code) 319 266-8402                             |  |  |

FCC Form 340 Application for Authority to Construct a Noncommercial Educational FM Station for Fergus Falls, MN

| Minnesota | Public | Radio |
|-----------|--------|-------|
|-----------|--------|-------|

## CERTIFICATION OF SITE AVAILABILITY

The applicant certified that it has reasonable assurance in good faith that the site of structure proposed in Section V-B, Item 2, FCC Form 340, as the location of its transmitting antenna, will be available to the applicant's intended purpose. Applicant will be leasing the site.



## **EXHIBIT #E1**ENGINEERING STATEMENT

Concerning the Application of
Minnesota Public Radio
To Construct a New Non-Commercial Educational Radio Station
To Serve Fergus Falls, Minnesota

### November 1998

### Channel 209 A

2.7 kW H & V

This engineering statement supports the application filed by Minnesota Public Radio to build a new non-commercial educational FM radio station to serve Fergus Falls, Minnesota and the surrounding area.

Under this proposal, a type approved, FM transmitter generates an output power of 1.548 kilowatts. The power is fed through a T-combiner assembly having an approximate efficiency of 97.2 percent. The Andrew HJ7-50A, 50-ohm air Heliax transmission line, has an efficiency for its 73.15 meter length of 89.7 percent. Therefore, the proposed 4-bay, circularly polarized antenna has at its input 1.35 kilowatts of power. The proposed antenna has a maximum power gain of 2.0 resulting in a maximum effective radiated power of 2.7 kW.

### Tower Vertical Sketch:

Exhibit #E2 is a vertical sketch of the existing authorized tower showing the authorized 106.7 meter tower and the proposed side mounted 4-bay circularly polarized antenna.

### Studio Exhibit:

Exhibit #E3 is a studio exhibit which requests waiver of the main studio rule, (Sec 73.1125.)

## Inter-modulation and blanketing:

Exhibit #E4 is an exhibit describing the possible effects of inter-modulation and blanketing.

Phone: (319) 266-8402 E-mail: dvernier@v-soft.com Fax: (319) 266-9212

## Site Map:

Exhibit #E5 is full scale section of a 1:24,000 scale U.S. Geological Survey topographic quadrangle map (Fergus Falls Quadrangle) showing the exact transmitter location. Page # 2 of this exhibit is a photo-reduction of the corner of the map bearing coordinate identification.

## Coverage Map

Exhibit #E6 is a map of the proposed 1 mV/m (60 dBu) signal contour. Fergus Falls, Minnesota, the city of licensee, is shown to be fully encompassed by the proposed 60 dBu city service contour. The coverage map was computer generated using U.S. Geological Survey Digital Line Graph data, which was originally digitized from 1:2,000,000 scale maps. Three hundred and sixty evenly spaced radials were used to plot the 60 dBu contour. The area within the proposed one mV/m contour amount 1,199 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  $\pi$  to determine the area within the contour: The population within the 60 dBu service contour was determined to be 19,221 people through the use of a computer program which extracts a population count based on population centroids defined by U.S. Census 1990 (PL-94-171) digital census data. This program draws data from the following summary level: State-County-Voting District/Remainder-County Subdivision, Place/Remainder-Census Tract/Block Numbering Area-Block Group.

Thirty-six evenly spaced radials were used to determine the antenna height above average terrain. The N.G.D.C. 03 arc-second terrain database was used to determine the radial elevations at .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 #4 of this exhibit.)

## **Allocation Study:**

Exhibit #E7, is a single channel, contour to contour, allocation study showing that interference is neither caused nor received by an FM radio station or construction permit. Page # 2 of this exhibit is a narrative explaining the procedures and conventions used in the study. Page # 3-9 are allocation study maps and FMOVER tabulations showing the relationship between the applicant's proposal and critical stations CP208, Alexandria, KUMM, Morris and KCCD Moorhead. There are no I.F. relationships. The proposal is within 320 kilometers of the U.S. border with Canada.

## **Channel-Six Television Protection:**

Exhibit #E8 is a map of the 47 dBu, Grade B, protected signal contours of WDAYTV, Fargo, North Dakota. The map also contains a plot of the proposed facility's, worst case, section 73.599, Figure #1, 73.3 dBu F(50-10) interference signal contour (6 dB receiving antenna directivity credit used) using the mixed polarization study power of 2.7676 kW (2.7 + 40/2.7). Page #2 of this exhibit is a close-up of the interference area with an overlay of the population centroids from the 1990 US Census group block data. It can be observed that there are only three centroids located within the predicted interference area. When counted these three population centroids represent a total of 387 people. Since this amount is less than the 3000 maximum allowed under the rules, this proposal meets the Commission's rules and regulations regarding protection to channel-six TV. Pages #3 - 4 are tabular printouts of the predicted distances to the relevant contours used in the study.

## R.F. Hazard compliance:

Exhibit #E9 shows compliance with the Commission's R.F. emission's standards.

Page #5 of this exhibit (Ex. # E1) is a declaration made by the preparer, Doug Vernier, attesting to his qualifications.

# Ex #El, Pg #4 Doug Vernier, Telecommunications Consultants Minnesota Public Radio - Coverage Contour Distances ERP = 2.7 kW

| Channel = | = 209 |
|-----------|-------|
|-----------|-------|

|                   | _                                       |   |              | 7/50 50)                               |
|-------------------|---|---|--------------|--|
| Azimuth<br>Deg.T. | Ave. Elev.<br>3 to 16 km<br>Meters AMSL | Effective<br>Antenna Height<br>Meters AAT | ERP<br>(dBk) | F(50-50) Distance to 60 dBu Contour km |
| 0                 | 389.2                                   | 55.8                                      | 4.314        | 17.80                                  |
| 10                | 399.2                                   | 45.8                                      | 4.314        | 15.87                                  |
| 20                | 397.8                                   | 47.2                                      | 4.314        | 16.16                                  |
| 30                | 409.7                                   | 35.3                                      | 4.314        | 13.84                                  |
| 40                | 408.4                                   | 36.6                                      | 4.314        | 14.08                                  |
| 50                | 409.3                                   | 35.7                                      | 4.314        | 13.91                                  |
| 60                | 408.5                                   | 36.5                                      | 4.314        | 14.06                                  |
| 70                | 402.1                                   | 42.9                                      | 4.314        | 15.29                                  |
| 80                | 404.7                                   | 40.3                                      | 4.314        | 14.78                                  |
| 90                | 403.5                                   | 41.5                                      | 4.314        | 15.01                                  |
| 100               | 400.5                                   | 44.5                                      | 4.314        | 15.61                                  |
| 110               | 391.5                                   | 53.5                                      | 4.314        | 17.40                                  |
| 120               | 386.4                                   | 58.6                                      | 4.314        | 18.26                                  |
| 130               | 395.2                                   | 49.8                                      | 4.314        | 16.69                                  |
| 140               | 387.7                                   | 57.3                                      | 4.314        | 18.05                                  |
| 150               | 366.7                                   | 78.3                                      | 4.314        | 20.97                                  |
| 160               | 371.3                                   | 73.7                                      | 4.314        | 20.36                                  |
| 170               | 367.3                                   | 77.7                                      | 4.314        | 20.89                                  |
| 180               | 357.8                                   | 87.2                                      | 4.314        | 22.12                                  |
| 190               | 352.6                                   | 92.4                                      | 4.314        | 22.76                                  |
| 200               | 345.7                                   | 99.3                                      | 4.314        | 23.57                                  |
| 210               | 342.7                                   | 102.3                                     | 4.314        | 23.91                                  |
| 220               | 342.6                                   | 102.4                                     | 4.314        | 23.92                                  |
| 230               | 343.2                                   | 101.8                                     | 4.314        | 23.85                                  |
| 240               | 341.9                                   | 103.1                                     | 4.314        | 24.00                                  |
| 250               | 342.4                                   | 102.6                                     | 4.314        | 23.94                                  |
| 260               | 344.6                                   | 100.4                                     | 4.314        | 23.70                                  |
| 270               | 346.8                                   | 98.2                                      | 4.314        | 23.44                                  |
| 280               | 351.7                                   | 93.3                                      | 4.314        | 22.87                                  |
| 290               | 353.4                                   | 91.6                                      | 4.314        | 22.66                                  |
| 300               | 358.7                                   | 86.3                                      | 4.314        | 22.00                                  |
| 310               | 376.7                                   | 68.3                                      | 4.314        | 19.63                                  |
| 320               | 390.9                                   | 54.1                                      | 4.314        | 17.51                                  |
| 330               | 394.7                                   | 50.3                                      | 4.314        | 16.79                                  |
| 340               | 386.1                                   | 58.9                                      | 4.314        | 18.31                                  |
| 350               | 384.1                                   | 60.9                                      | 4.314        | 18.60                                  |
| Ave -             | 376 5 M                                 | 68 5 M                                    |              |  |

376.5 M 68.5 M Ave. =

Antenna Radiation Center AMSL =445 M NGDC 03 Arc Sec.

Geographic Coordinates:

N. Lat. 46 19 16 W. Lng. 96 05 36

#### Declaration:

I, Doug Vernier, declare that I have received training as an engineer from the University of Michigan School of Engineering. That, I have received degrees from the University in the field of Broadcast Telecommunications. That, I have been active in broadcast consulting for over 25 years;

That, I have held a Federal Communications Commission First Class Radiotelephone License continually since 1964. In 1985, this license was reissued by the Commission as a lifetime General Radiotelephone license no. PG-16-16464;

That, I am certified as a Professional Broadcast Engineer (#50258) by the Society of Broadcast Engineers, Indianapolis, Indiana. (Re-certified 11/95.)

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

That, I have been retained by Minnesota Public Radio of Saint Paul, Minnesota, and as such have prepared the engineering showings appended hereto;

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

- Douglas L. Vernier

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

.

Executed on November 16, 1998

Subscribed and sworn before me this 16th day of November, 1998.

otary Public in and for the State of Iowa

My Commission Expires August 10, 2001



f<---- 66M AG, 450M AMSL f<---- 61M AG, 445M AMSL. 68.5M HAAT (Proposed COR)

56M AG, 440M AMSL

GROUND ELEVATION = 384M

### VERTICAL SKETCH

N. Lat. 46 19 16 W. Lng. 96 05 36

Existing Authorized Tower (Not to Scale)

### FIGURE #E2

Minnesota Public Radio
CH 209 - 68.5 M HAAT
2.7 kW H & V
Fergus Falls, Minnesota
November 198

DOUG VERNIER
BROADCAST CONSULTANT
1600 PICTURESQUE DR.
CEDAR FALLS, IA 50613
319 266-8402

Exhibit #E3, Page 1 Studio Exhibit for Fergus Falls, Minnesota

#### Minnesota Public Radio

November, 1998

Minnesota Public Radio ("MPR") proposes to construct and operate a new noncommercial educational FM station to serve Fergus Falls, MN and the surrounding area. Its studios will be colocated with those of KSJN (FM) for which MPR is the licensee. That studio is located at 45 East Seventh Street, Saint Paul, MN 55101.

MPR is a nonprofit corporation formed for the purpose of providing noncommercial educational radio service to listeners in Minnesota and surrounding states. MPR's current 29 FM and one AM operating facilities provide 24 hours-per-day quality programming to Minnesota's citiizens, as well as to substantial numbers of listeners in North and South Dakota, Iowa, Wisconsin, Michigan, Idaho and southern Ontario. MPR provides programming to its network of stations from its primary Minneapolis/Saint Paul stations – KSJN (FM), Minneapolis, Minnesota, and KNOW (FM), Saint Paul, Minnesota, and from many of its network stations throughout the region. KNOW (FM) is an all news/information station and KSJN(FM) is a classical music station. The proposed station will be operated as a "classical music" station in that it will primarily broadcast KSJN (FM).

On November 20, 1998, MPR applied for a construction permit to build a new noncommerical educational FM station to serve Fergus Falls, MN and the surrounding area. If the application is granted, that station will be operated as a "news and information" station in that it will primarily broadcast KNOW (FM).

MPR currently holds a license for and operates a translator station in Fergus Falls, MN. The proposed stations will probably replace this translator.

MPR therefore requests a waiver of Section 73.1125 of the Commission's Rules to permit MPR to operate its proposed noncommercial educational FM station on Channel 209 at Fergus Falls, MN, as a satellite station without a main studio in the community of license. As demonstrated below, grant of the instant waiver request would be in the public interest.

The Commission has issued decisions stating that the "main studio must, at a minimum, maintain full-time managerial and full-time staff personnel." <u>Jones Eastern of the Outer Banks, Inc.</u>, FCC 91-175, released June 19, 1991, at ¶ 9; see also Salem Broadcasting, Inc., DA 91-804, released July 2, 1991.

Grant of this requested waiver is necessary to permit MPR to operate the proposed Fergus Falls station as a "satellite" because the Fergus Falls area could not otherwise support another wholly independent non-commercial educational FM station. The population of Fergus Falls is only about 14,000. Because of this area's limited economic base, it is highly unlikely that a station with separate staff and studio could provide the same high quality public radio service that MPR proposes. Therefore, waiver of Section 73.1125 is necessary in this case to ensure that the residents of Fergus Falls area receive the diverse and important programming MPR will provide.

Exhibit #E3, Page 2 Studio Exhibit for Fergus Falls, Minnesota

Minnesota Public Radio

November, 1998

The Commission has recognized the advantages accruing to noncommercial broadcasters from consolidated operations:

In the past, we have recognized the benefits of centralized operations for noncommercial educational stations, given the limited funding available to these stations, and we have granted waivers to state and regional public television and radio networks to operate "satellite" stations that do not necessarily meet the requirements of a main studio.

Main Studio Program Origination Rules, 3 FCC Red. 5024, 5027 (1988) (citing Nebraska Educational Television Commission, 4 R.R.2d 771 (1965). Indeed, the Commission has previously determined that waiver of the main studio rule for other stations in the MPR network serves the public interest. See Letter from Linda Blair, Chief, Audio Services Division to Todd M. Stansbury, dated May 31, 1996 (attached hereto); see also Letter from Dennis Williams, Assistant Chief, Audio Services Division to Todd M. Stansbury, dated November 6, 1995, File No. BPED-9508101A.

Upon grant of this request, MPR will satisfy the public needs and interests of residents of Fergus Falls by the following means:

- MPR maintains a toll-free telephone line by which the residents of the Fergus Falls area can reach MPR management to express concerns about the station operations. This toll-free telephone number goes into MPR's Member Listener Services (MLS) Department. MPR currently has 6 live phone lines and 7 full-time employees who answer the phones and emails. In the past year, MLS has handled about 60,000 incoming calls on every subject you can think of related to MPR, including comments and questions about programming on both services. In addition, MLS has handled about 9,000 email messages in the past year. While the number of phone lines and employees may change with time, MPR's commitment to maintain easy access is strong.
- MPR currently has one person in Saint Paul who is responsible for the final decisions on all programming on MPR stations. MPR has a news director and a classical music director who report to this person. Listener comments from MLS go to this person, who then distributes comments about the music service to the music programming people, and comments about news programming to the news programming director. Summaries of comments about both services are widely distributed throughout the company and to the Board. The current organizational structure may change with time, but the commitment to maintain control of programming and circulate listener opinions will not change.
- MPR has established a site on the World Wide Web (http://www.mpr.org) that enables local residents to receive extensive information regarding MPR's programming and provides a link for

#### Exhibit #E3, Page 3 Studio Exhibit for Fergus Falls, Minnesota

#### Minnesota Public Radio

November, 1998

local residents to email concerns about the station operations to MPR management. The site contains descriptions of special reports, schedules for news and classical music programming, and on-line audio sources for MPR programming, including its radio series A Prairie Home Companion®. In addition, MPR has established home pages on the MPR Web Site for its network stations. When the proposed station is constructed, MPR will add the proposed station to the Web Site list.

- MPR has an existing relationship with the Fergus Falls area through its 250 currently active members in the Fergus Falls area, all of whom identify themselves as listeners of MPR's translator in Fergus Falls (out of a total MPR membership of about 85,000). MPR actively solicits comments from its members concerning programming and station operation and ensures that member requests and recommendations are thoughtfully considered in making programming decisions.
- MPR currently has a Regional Development Advisory Council (RDAC) for its stations KQMN (FM), KNTN (FM), KCCM (FM) and KCCD (FM) that advises management of MPR on issues related to the areas of these stations, all of which are located in the northwestern part of Minnesota. Fergus Falls is located in the same general area. Two residents of Fergus Falls currently serve on this RDAC.
- MPR operates the largest news organization of any radio service in the Midwest. With this extensive news resource, MPR is able to produce news programming from throughout MPR's service area and distribute it to all stations in the network. MPR's reporters located in nearby Moorhead MN and the newsroom staff in Saint Paul subscribe to the local and area publications and maintain ongoing relationships with community residents and leaders, who are periodically contacted regarding local events and developments. MPR's reporters use information provided by these contacts to investigate events and to file news stories for broadcast by MPR either regionally or throughout the MPR multi-state network.
- MPR operates a traveling Mainstreet Radio® crew of four persons, which gathers and produces
  programming material from rural and small city locations such as the Fergus Falls area
  throughout MPR's service area for broadcast through the network.

All four Mainstreet reporters live and work outside of the Twin Cities of Minneapolis and Saint Paul, giving their stories a perspective that reflects their rural and small-town lifestyles - a perspective that is consciously not "metrocentric." *Mainstreet Radio®* has four goals:

- To provide listeners throughout Minnesota with compelling stories, insights and perspectives from rural people and places,
- To link the state in common understanding of rural issues and foster a sense of the shared destiny of all Minnesota

#### Exhibit #E3, Page 4 Studio Exhibit for Fergus Falls, Minnesota

#### Minnesota Public Radio

#### November, 1998

- To provide a local and regional context for issues that are global and universal
- To create a body of work that will help rural communities deal effectively with their issues
- MPR has received a grant from the Corporation for Public Broadcasting that has been used to test a pilot program called "Local Link" TM. The purpose of Local Link is to enhance local news coverage in rural and small communities. This program, which is unique in public broadcasting, is currently in the implementation and testing stages and has recently been installed at several of MPR's stations. Local Link is enabling MPR to improve news programming in its small city markets, including Fergus Falls. For example, one of the goals of Local Link is to allow reporters located at stations in the areas of the state outside of Minneapolis and Saint Paul to spend less time on-air reading the news and more time getting out in the region they cover working with their contacts and covering local and regional news.

For the foregoing reasons, MPR submits that it will be able to ascertain and satisfy the interests and need of residents of the Fergus Falls area and, therefore, respectfully requests that the Commission grant this waiver of the main studio rule for the proposed station.

Mitzi T Gramling

# FEDERAL COMMUNICATIONS COMMISSION WASHINGTON, D. C. 20554

1 396

IN REPLY REFER D. 1800B3-ALH

Todd M. Stansbury, Esq. Wiley, Rein & Fielding 1776 K Street, N.W. Washington, D. C. 20006

Re: New FM Service in Appleton, Minnesota, File No. BPED-941108MB

Dear Mr. Stansbury:

The staff has under consideration the application of Minnesota Public Radio ("MPR") to construct a new noncommercial educational ("NCE") FM station in Appleton. Minnesota (File No. BPED-941108MB). MPR requests waiver of the Commission's main studio requirement, see 47 C.F.R. § 73.1125, in order to operate the Appleton station as a satellite of its NCE station KNOW(FM). St. Paul. Minnesota. For the reasons set forth below, we will waive 47 C.F.R § 73.1125 and grant MPR's application for a construction permit.

Section 73.1125(a) requires each broadcast station to maintain a main studio within the station's principal community contour to ensure that the station will serve the needs and interests of the residents of its community of license. Amendment of Sections 73.1125 and 73.1130, 3 FCC Red 5024, 5027 (1988). However, under Section 73.1125(a)(4), the Commission will waive this requirement where "good cause" exists to do so and where the proposed studio location "would be consistent with the operation of the station in the public interest." Each waiver request by an NCE station seeking to operate as the satellite of another NCE station is considered on a case-by-case basis. The Commission has recognized the benefits of centralized operations for NCE stations, given their limited funding, and thus found "good cause" exists to waive the main studio location requirement where satellite operations are proposed. Id. A satellite station must, however, demonstrate that it will meet its local service obligation to satisfy the Section 73.1125 "public interest" standard. Id.

MPR's request is based on the economies of scale which would be realized by grant of its waiver. We agree and conclude that there is "good cause" to waive 47 C.F.R. § 73.1125(a)(4) in these circumstances. MPR proposes to operate the Appleton station as a satellite of KNOW(FM), St. Paul. Minnesota, approximately 110 miles from Appleton. Where there is a great distance between parent and satellite stations, as here, we are particularly concerned that the licensee take adequate measures to maintain its awareness of the satellite community's needs and interests. To that end, MPR has pledged to: (1) continue its policy that residents of each service area participate on a regional advisory council which

In relevant part. Section 73.1125 requires each broadcast station to maintain a main studio within it station's principal community contour.

provides input to management on programming issues of interest to the residents throughout MPR's service area, including Appleton; (2) continue its existing relationship with the community of Appleton which has been established by means of its existing station KRSU(FM). Appleton, Minnesota; (3) solicit comments from MPR members in Appleton concerning programming and station operation; (4) base a "beat" reporter in Appleton who will subscribe to local and area publications and maintain ongoing relationships with community residents and leaders, who will be periodically contacted regarding local events and developments; (5) maintain a toll-free telephone number for residents of Appleton to contact MPR management in accordance with 47 C.F.R. § 73.1125(c); and (6) operate a site on the World Wide Web which enables local residents to receive extensive information and comment on MPR's programming. We also remind MPR that it must maintain a public tile for the new station in Appleton, as required by 47 C.F.R. § 73.3527(d). In these circumstances, we are persuaded that MPR will meet its local service obligations and thus, that grant of the requested waiver is consistent with the public interest.

Accordingly, the application of Minnesota Public Radio for a new noncommercial educational FM station in Appleton, Minnesota (File No. BPED-941108MB) and its request for waiver of 47 C.F.R. § 73.1125 ARE GRANTED. The authorization will be forwarded under separate cover.

Sincerely.

Risa Sanlan

Linda Blair, Chief

Audio Services Division

Mass Media Bureau

#### EXHIBIT #E4 Inter-modulation Interference November 1998

Concerning the Application of Minnesota Public Radio Fergus Falls, Minnesota

89.7 MHz

The 115 dBu blanketing contour of the proposed facility travels 647 meters from the proposed 2.7 kW ERP antenna. There is little or no population within this area.

There is one LPTV station within ten kilometers. The applicant operates a translator station within ten kilometers, however this unit will be turned off when broadcasting begins using the proposed facilities. In another application the applicant proposes to place an additional signal on the proposed tower at 91.5 MHz. Page #2 of this exhibit lists pertinent information as to the existing facilities and locations.

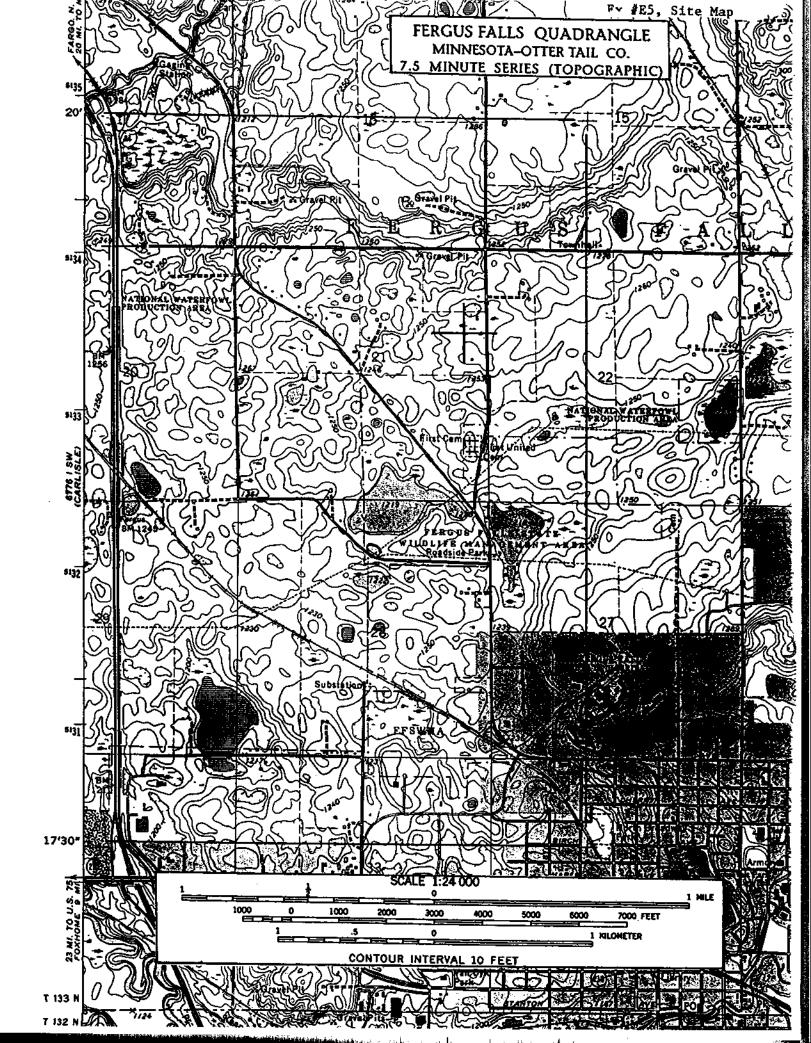
Since the applicant proposes to add another FM signal in diplex with the existing FM signal, it is possible for a signal mix of 1.8 MHz to exist. Without proper filtering, this signal mix could be introduced to the IPA's of the either of the two transmitters resulting in a mix of the original transmitter frequencies plus or minus the mix frequency. The applicant is aware of such a possibility and will use proper filtering to assure that inter-modulation will be effectively limited.

Minnesota Public Radio is aware of its responsibility under the rules relating to intermodulation and objectionable blanketing interference. It will correct any such interference, at its own expense, within a period of one year from commencement of broadcasting at the proposed transmitter site. Corrections shall employ traditional means such as filters, traps and tuning adjustments.

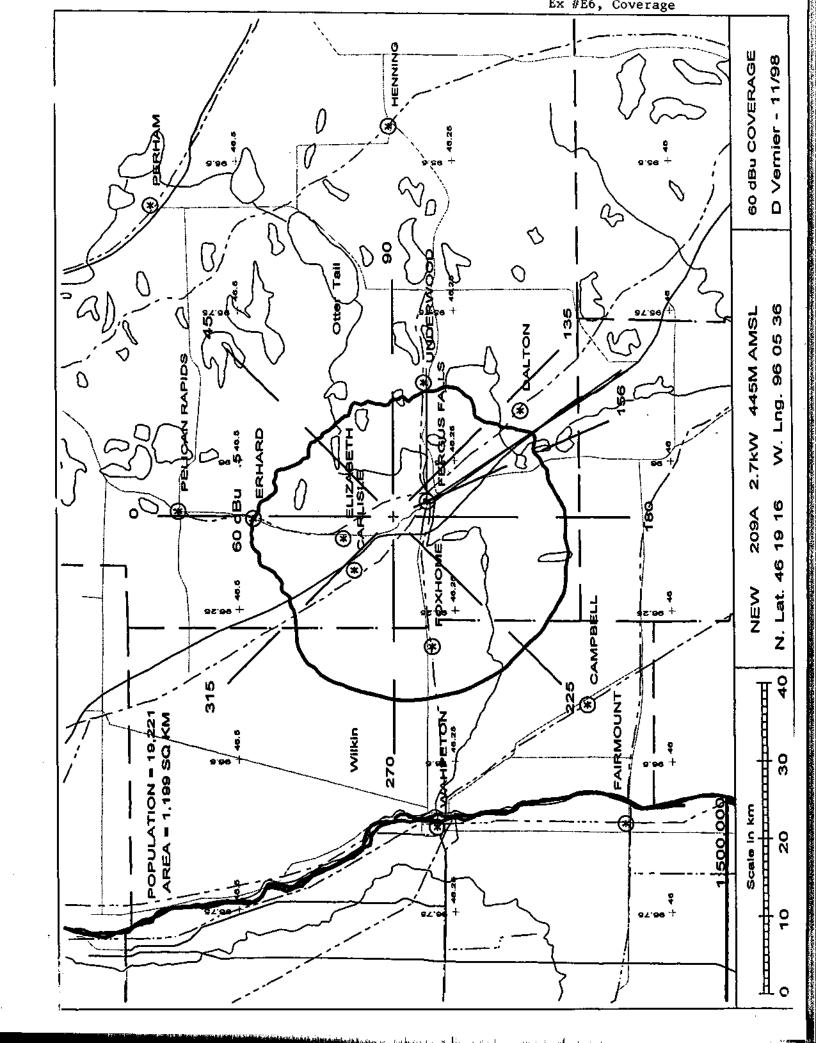
Ex #E4, Pg #2

| ΙĐ | Stations | Study | at | 46 | 19 | 16 | N, | 96 | 05 | 36 | W, | Search | Distance | = 10  km |  |
|----|----------|-------|----|----|----|----|----|----|----|----|----|--------|----------|----------|--|
|----|----------|-------|----|----|----|----|----|----|----|----|----|--------|----------|----------|--|

| Call           | City                  | State Chan. Power                     | Coordinates     |
|----------------|-----------------------|---------------------------------------|-----------------|
| Dist-km        | Azimuth               | File Number                           |                 |
| KBRF           | FERGUS FALLS<br>145.2 | MN 1250 0005.000kw<br>BL970206AB AM   | 461622N 960241W |
| K209BA         | Fergus Falls          | MN 209D 0000.135kW                    | 461803N 960449W |
| 002.5          | 156.0                 | BLFT901120TB FM                       |                 |
| K02MM<br>000.6 | FERGUS FALLS 021.8    | MN 02C 0000.099kW<br>BLTTV840604II TV | 461935N 960525W |



Ex #E



319 266-8402

#### CH# 209A - 89.7 MHz

#### Minnesota Public Radio

INTERFERENCE CHECKS WITH TBA, FERGUS FALLS, MN at N. LAT. 46 19 16 W. LNG. 96 05 36

PWR = 2.7 KW H.A.A.T. = 68.5 M C.O.R. = 445 M AMSL

Protected F(50-50) 60 dBu = 19.65 km

F(50-10) 40 dBu = 67.56 54 dBu = 28.81 80 dBu = 6.13 100 dBu = 1.93

| H# CALL  |   |  | DISTANCE LAT.   | PWR (kW) INT                                  |                         |
|--|---|--|---|---|-------------------------|
| ity<br>  | STATE LICENSEE  | <  | LNG.  | HAAT(M) COR                                   |                         |
| 06C2 AP206   | AP VN 66.7  | 47.5 28.3  | 90.78 km 47 02 18   | 50.00 4.44                                    | 41.39                   |
| aubun  | MN Niijii Broadcast   |  | 56.41 Mi 95 31 34   |   | 5 BPED960328M           |
| C Comment > vert   | ical polarization only  | •  |   |   |                         |
| 07C1 AP207   | AP CN 71.4  | 52.6 52.7  | 108.99 km 46 54 28  | 100.00 17.98                                  | 50.28                   |
| ebeka  | MN LifeTalk Broadca   | sting Asso 232.7                                     | 67.72 Mi 94 57 12   | 98.0 53                                       | 0 BPED960712M           |
| CC Comment > Prop  | osed as Class C1 to Can   | ada 970304-Accepted                                  | l by Canada 970404  |   |                         |
| 08D AP208  | AP CN 44.7  | 39.9 319.9   | 79.70 km 46 52 00   | 0.20 15.35                                    | 10.96                   |
| porhead  | MN North-Central Ch   | ristian Br 139.9                                     | 49.52 Mi 96 46 05   | 79.0 35                                       | 2 BPFT9803301           |
| CC Comment > Tran  | slator for WNC9, Duluth   | i, MN.   |   |   |                         |
| 08C3 CP208 *   | CP CN 3.3   | 11.7 130.6   | 66.21 km 45 55 55   | 7.20 46.17                                    | 29.78                   |
| lexandria  | MN Christian Herita   | ige Broadca 310.6                                    | 41.14 Mi 95 26 41   | 102.1* 52                                     | 6 BPED9803161           |
| CC Comment > Prog  | osed as Class B1 to Car   | ada 980818   |   |   |                         |
| ccepted as Class   | Bl by Canada 981001   |  |   |   |                         |
| Reference HAAT a   | t 130.6 degrees - 50.1  | M, Pwr.= 2.7 kH, 1                                   | Pro. Dist. = 16.75 km,                                    | Int. Dist 24                                  | .76 km                  |
| 08A AP208  | AP VN 28.4  | 29.8 313.2   | 79.02 km 46 48 1  | i 4.20 31.00                                  | 20.44                   |
| argo   | ND Pioneer Public F   | Broadcastin 133.2                                    | 49.10 Mi 96 50 S  | 61.0 33                                       | 5 BPED980427            |
| CC Comment > Vert  | ical Polarisation Only-   | -BRP is higher than                                  | that allowed by the                                       |   |                         |
| nternational agre  | ement   |  |   |   |                         |
| 09A KUMH *   | LI HN 38.7  | 6.0 169.9  | 82.67 km 45 35 2  | 0.22 23.12                                    | 6.91                    |
| orris  | MN University of M  | innesota, M 349.9                                    | 51.37 Mi 95 54 2  | 2 4.9* 36                                     | 4 BLED830509            |
| Reference HAAT   | t 169.9 degrees = 77.6  | M, Pwr.= 2.7 kM,                                     | Pro. Diet. = 20.88 km                                     | , Int. Dist. = 69                             | .73 km                  |
|  | LI DHN -37.9  | -71.2 156.0  | 2.47 km 46 18 0   | 3 0.14 20.73                                  | 6.10                    |
| 09D K209BA   |   |  |   |   |                         |
|  | NN Minnesota Public   | c Radio 336.0  | 1.53 Mi 96 04 4   | 9 0.0 42                                      | 2 BLFT901120            |
| ergus Falls  | _ <del>,</del>  |  | 1.53 Mi 96 04 4   | 9 0.0 42                                      | 2 BLFT901120            |
| ergus Falls  | MN Minnesota Public   |  |   | 9 0.0 42                                      | 2 BLFT901120            |
| ergus Falls CC Comment > Trai  | MN Minnesota Public<br>uslator for KCCMFM, Moor   | rhead, MN 76.5 126.7                                 |   | 2 100.00 31.35                                |                         |
| Pergus Falls CC Comment > Trai   | MN Minnesota Public<br>uslator for KCCMFM, Moor<br>LI CN 100.5                                  | rhead, MN 76.5 126.7                                 | 151.50 km 45 29 5<br>94.14 Mi 94 32 1                     | 2 100.00 31.35                                | 5 68.90<br>5 BMLED88061 |
| PCC Comment > Trai   | MN Minnesota Public<br>salator for KCCMFM, Moo:<br>LI CN 100.5<br>MN Minnesota Public           | 76.5 126.7 c Radio, In 306.7                         | 151.50 km 45 29 5<br>94.14 Mi 94 32 1                     | 2 100.00 31.35<br>4 258.0 61<br>5 100.00 7.10 | 6 68.90<br>7 BMLED88061 |
| Pergus Falls PCC Comment > Trai P11C1 KSJRFM Pollegeville P12C1 KCCD * | MN Minnesota Publicaslator for KCCMFM, Mood<br>LI CN 100.5<br>MN Minnesota Public<br>LI VN 38.4 | 76.5 126.7 c Radio, In 306.7 2.4 321.3 c Radio 141.3 | 151.50 km 45 29 5<br>94.14 Mi 94 32 1<br>62.70 km 46 45 3 | 2 100.00 31.35<br>4 258.0 61<br>5 100.00 7.10 | 5 68.90<br>5 BMLED88061 |

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#### I.P. RELATIONSHIPS: NONE FOUND

Nearest CH 6 Grade B =WDAYTV at 5.99 km, Distance= 114.3 Azimuth = 312.7 Deg. T.

<sup>\*</sup> Uses octual antenna radial HAAT and power toward reference

#### **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.

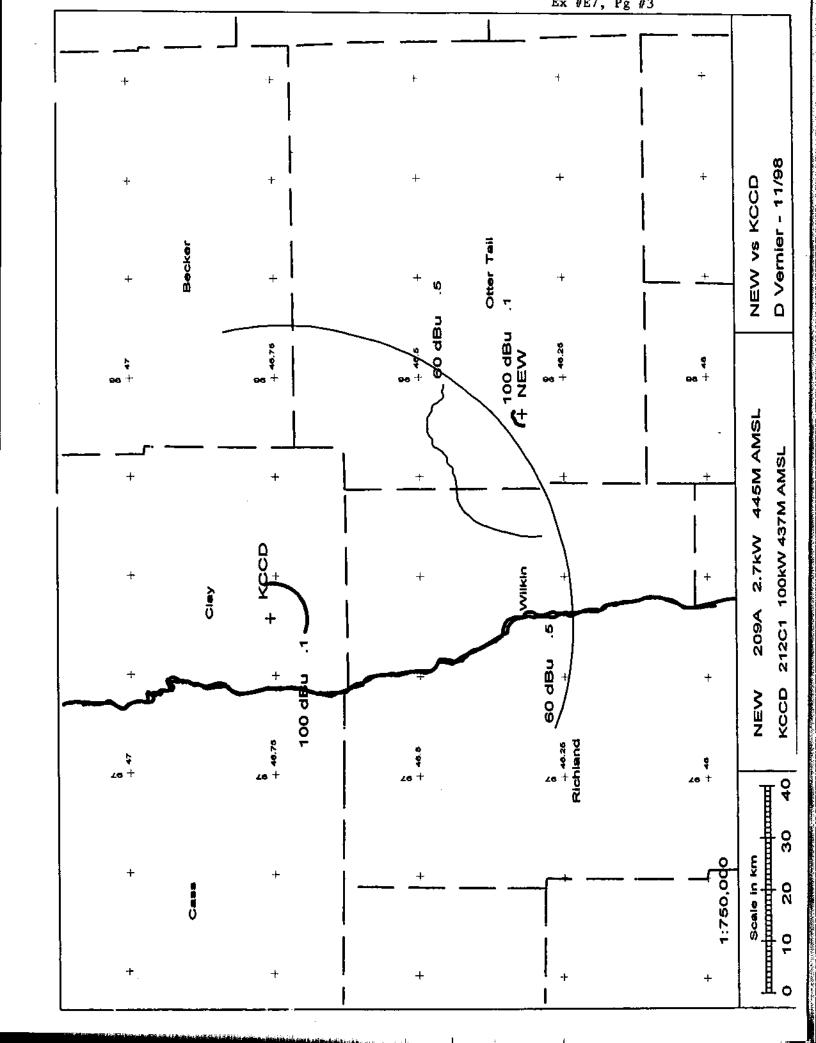
The column listed "\* IN \*" is the sum of the reference station's 60 dBu protected contour and the data file station's interference contour subtracted from the distance between the stations. (All distances are derived by the method detailed in Sec. 73.208 of the Rules and Regulations as amended in Docket 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 "BEARING" 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 F.C.C. 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.



 KCCD
 BLED920612KA
 NEW

 Channel = 212C1
 Channel = 209A

 Max ERP = 100 kW
 Max ERP = 2.7 kW

 RCAMSL = 437 M
 RCAMSL = 445 M

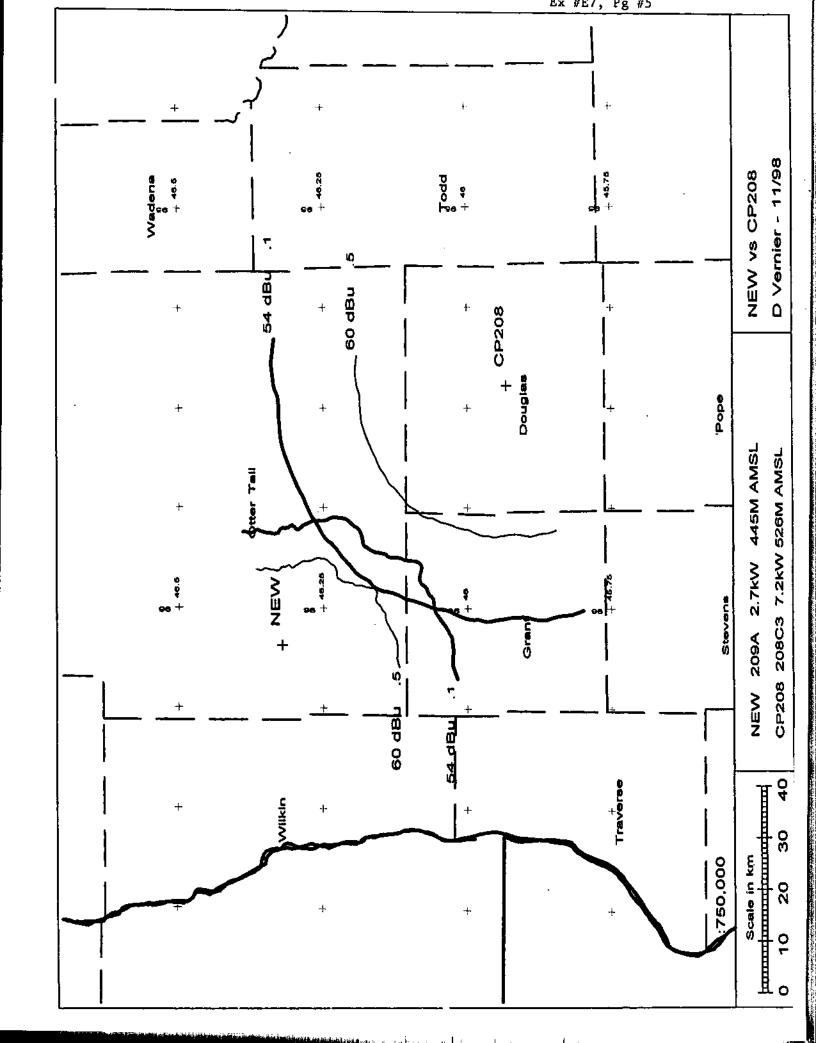
 N. Lat = 46 45 35
 N. Lat = 461916

 W. Lng = 96 36 26
 W. Lng = 960536

Protected 60 dBu

Interfering 100 dBu

| Azimuth (degrees) |          | HAAT<br>(m) | Dist<br>(km) | Azimuth (degrees) | ERP<br>(kW) | HAAT<br>(m) | Dist<br>(km) | Actual<br>(dBu) |
|-------------------|----------|-------------|--------------|-------------------|-------------|-------------|--------------|-----------------|
| 130.0             | 100.0000 | 0146.6      | 058.0        | 023.6             | 002.7000    | 0042.2      | 012.5        | 63.4            |
| 31.0              | 100.0000 | 0146.8      | 058.0        | 021.7             | 002.7000    | 0042.2      | 012.5        | 65.8            |
| <b>⊥32.0</b>      | 100.0000 | 0147.1      | 058.1        | 020.0             | 002.7000    | 0047.2      | 010.5        | 67.6            |
| 133.0             | 100.0000 | 0147.6      | 058.1        | 018.1             | 002.7000    | 0046.4      | 009.6        | 69.1            |
| 134.0             | 100.0000 | 0148.4      | 058.3        | 015.8             | 002.7000    | 0046.6      | 008.6        | 70.9            |
| 135.0             | 100.0000 | 0149.2      | 058.4        | 012.9             | 002.7000    | 0044.2      | 007.7        | 72.2            |
| 136.0             | 100.0000 | 0149.8      | 058.4        | 008.8             | 002.7000    | 0047.5      | 006.8        | 74.9            |
| 137.0             | 100.0000 | 0150.1      | 058.5        | 003.1             | 002.7000    | 0053.8      | 006.0        | 78.3            |
| 138.0             | 100.0000 | 0150.3      | 058.5        | 355.6             | 002.7000    | 0058.8      | 005.3        | 81.4            |
| 139.0             | 100.0000 | 0150.4      | 058.5        | 345.8             | 002.7000    | 0058.8      | 004.7        | 83.3            |
| 140.0             | 100.0000 | 0150.3      | 058.5        | 333.7             | 002.7000    | 0051.4      | 004.4        | 83.4            |
| 1.0               | 100.0000 | 0150.3      | 058.5        | 320.2             | 002.7000    | 0053.8      | 004.3        | 84.3            |
| 142.0             | 100.0000 | 0150.4      | 058.5        | 306.8             | 002.7000    | 0076.8      | 004.4        | 86.7            |
| 143.0             | 100.0000 | 0150.3      | 058.5        | 295.1             | 002.7000    | 0089.6      | 004.8        | 86.6            |
| 144.0             | 100.0000 | 0150.2      | 058.5        | 285.5             | 002.7000    | 0092.2      | 005.4        | 85.0            |
| 145.0             | 100.0000 | 0149.9      | 058.5        | 278.3             | 002.7000    | 0093.6      | 006.1        | 82.9            |
| 146.0             | 100.0000 | 0149.7      | 058.4        | 272.7             | 002.7000    | 0096.6      | 006.9        | 81.0            |
| 147.0             | 100.0000 | 0149.6      | 058.4        | 268.3             | 002.7000    | 0098.9      | 007.8        | 79.1            |
| .48.0             | 100.0000 | 0149.7      | 058.4        | 264.8             | 002.7000    | 0099.8      | 008.7        | 77.4            |
| 149.0             | 100.0000 | 0149.8      | 058.4        | 262.0             | 002.7000    | 0100.3      | 009.6        | 75.7            |
| 150.0             | 100.0000 | 0149.8      | 058.4        | 259.9             | 002.7000    | 0100.4      | 010.5        | 74.0            |
| 151.0             | 100.0000 | 0149.8      | 058.4        | 258.2             | 002.7000    | 0100.4      | 011.5        | 72.4            |
| 152.0             | 100.0000 | 0149.7      | 058.4        | 256.9             | 002.7000    | 0100.3      | 012.5        | 70.9            |
| 153.0             | 100.0000 | 0149.6      | 058.4        | 255.9             | 002.7000    | 0100.4      | 013.5        | 69.5            |
| 154.0             | 100.0000 | 0149.6      | 058.4        | 255.0             | 002.7000    | 0100.7      | 014.5        | 68.3            |
| 155.0             | 100.0000 | 0149.7      | 058.4        | 254.3             | 002.7000    | 0100.8      | 015.5        | 67.5            |
| 156.0             | 100.0000 | 0149.7      | 058.4        | 253.7             | 002.7000    | 0100.9      | 016.5        | 66.7            |
| 157.0             | 100.0000 | 0149.7      | 058.4        | 253.3             | 002.7000    | 0101.1      | 017.5        | 65.8            |
| 158.0             | 100.0000 | 0149.6      | 058.4        | 253.1             | 002.7000    | 0101.2      | 018.5        | 65.0            |
| 159.0             | 100.0000 | 0149.2      | 058.4        | 253.0             | 002.7000    | 0101.2      | 019.5        | 64.2            |
| 160.0             | 100.0000 | 0149.2      | 058.4        | 252.8             | 002.7000    | 0101.3      | 020.6        | 63.4            |



CP208 BPED980316ME NEW
Channel = 208C3 Channel = 209A
Max ERP = 7.2 kW Max ERP = 2.7 kW
RCAMSL = 526 M RCAMSL = 445 M
N. Lat = 45 55 55 N. Lat = 461916
W. Lng = 95 26 41 W. Lng = 960536

Protected 60 dBu

Interfering 54 dBu

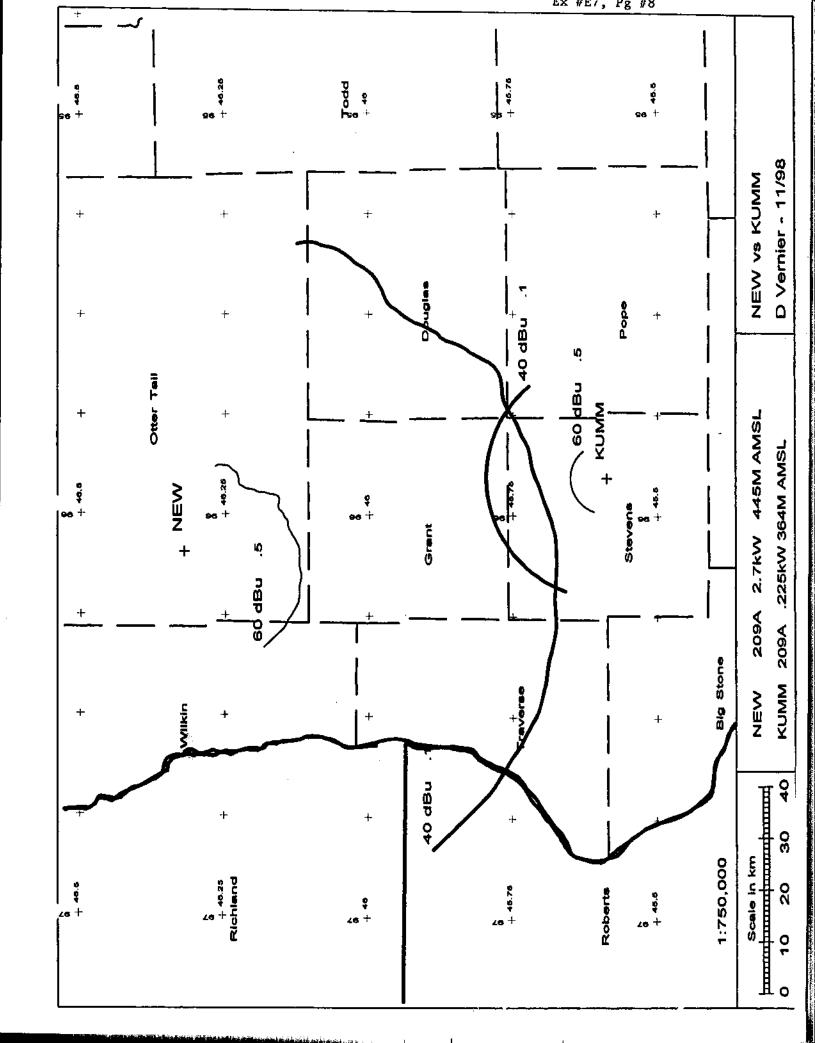
| Azimuth (degrees) | ERP<br>(kW) | HAAT<br>(m) | Dist<br>(km) | Azimuth (degrees) | ERP<br>(kW) | TAAH<br>(m) | Dist<br>(km) | Actual<br>(dBu) |
|-------------------|-------------|-------------|--------------|-------------------|-------------|-------------|--------------|-----------------|
| 290.0             | 007.2000    | 0097.2      | 029.1        | 145.6             | 002.7000    | 0068.9      | 040.3        | 48.9            |
| 91.0              | 007.2000    | 0096.9      | 029.0        | 145.0             | 002.7000    | 0067.5      | 040.1        | 48.8            |
| <b>∠92.0</b>      | 007.2000    | 0097.2      | 029.1        | 144.4             | 002.7000    | 0066.7      | 039.8        | 48.8            |
| 293.0             | 007.2000    | 0097.6      | 029.1        | 143.9             | 002.7000    | 0065.9      | 039.4        | 48.9            |
| 294.0             | 007.2000    | 0098.0      | 029.2        | 143.3             | 002.7000    | 0064.7      | 039.1        | 48.9            |
| 295.0             | 007.2000    | 0098.8      | 029.3        | 142.7             | 002.7000    | 0063.2      | 038.8        | 48.8            |
| 296.0             | 007.2000    | 0099.2      | 029.4        | 142.0             | 002.7000    | 0061.4      | 038.5        | .48.7           |
| 297.0             | 007.2000    | 0099.1      | 029.4        | 141.4             | 002.7000    | 0059.6      | 038.3        | 48.6            |
| 298.0             | 007.2000    | 0099.2      | 029.4        | 140.7             | 002.7000    | 0057.9      | 038.1        | 48.5            |
| 299.0             | 007.2000    | 0099.7      | 029.4        | 140.0             | 002.7000    | 0057.2      | 037.8        | 48.5            |
| 300.0             | 007.2000    | 0101.1      | 029.6        | 139.3             | 002.7000    | 0057.4      | 037.5        | 48.6            |
| 1.0               | 007.2000    | 0102.9      | 029.9        | 138.7             | 002.7000    | 0057.2      | 037.1        | 48.8            |
| 302.0             | 007.2000    | 0103.8      | 030.0        | 138.0             | 002.7000    | 0056.1      | 036.8        | 48.7            |
| 303.0             | 007.2000    | 0104.1      | 030.1        | 137.2             | 002.7000    | 0055.0      | 036.6        | 48.6            |
| 304.0             | 007.2000    | 0104.1      | 030.1        | 136.4             | 002.7000    | 0053.9      | 036.5        | 48.5            |
| 305.0             | 007.2000    | 0102.3      | 029.8        | 135.5             | 002.7000    | 0052.8      | 036.6        | 48.3            |
| 306.0             | 007.2000    | 0102.5      | 029.8        | 134.7             | 002.7000    | 0051.6      | 036.5        | 48.2            |
| 307.0             | 007.2000    | 0103.2      | 029.9        | 134.0             | 002.7000    | 0051.1      | 036.3        | 48.1            |
| 08.0              | 007.2000    | 0103.5      | 030.0        | 133.1             | 002.7000    | 0050.7      | 036.2        | 48.1            |
| 309.0             | 007.2000    | 0103.6      | 030.0        | 132.3             | 002.7000    | 0050.5      | 036.2        | 48.1            |
| 310.0             | 007.2000    | 0102.9      | 029.9        | 131.5             | 002.7000    | 0050.4      | 036.3        | 48.1            |
| 311.0             | 007.2000    | 0101.9      | 029.8        | 130.7             | 002.7000    | 0050.1      | 036.4        | 48.0            |
| 312.0             | 007.2000    | 0101.5      | 029.7        | 129.8             | 002.7000    | 0049.8      | 036.5        | 47.9            |
| 313.0             | 007.2000    | 0101.2      | 029.7        | 129.0             | 002.7000    | 0050.3      | 036.5        | 47.9            |
| 314.0             | 007.2000    | 0100.9      | 029.6        | 128.2             | 002.7000    | 0051.5      | 036.6        | 48.1            |
| 315.0             | 007.2000    | 0100.3      | 029.5        | 127.5             | 002.7000    | 0053.0      | 036.8        | 48.3            |
| 316.0             | 007.2000    | 0099.7      | 029.4        | 126.7             | 002.7000    | 0054.2      | 036.9        | 48.4            |
| 317.0             | 007.2000    | 0099.5      | 029.4        | 125.9             | 002.7000    | 0055.3      | 037.0        | 48.5            |
| 318.0             | 007.2000    | 0099.5      | 029.4        | 125.1             | 002.7000    | 0056.6      | 037.1        | 48.7            |
| 319.0             | 007.2000    | 0100.3      | 029.5        | 124.3             | 002.7000    | 0057.6      | 037.2        | 48.8            |
| 320.0             | 007.2000    | 0100.5      | 029.6        | 123.5             | 002.7000    | 0058.1      | 037.3        | 48.8            |
| 321.0             | 007.2000    | 0100.2      | 029.5        | 122.8             | 002.7000    | 0058.3      | 037.5        | 48.8            |
| 322.0             | 007.2000    | 0099.6      | 029.4        | 122.1             | 002.7000    | 0058.3      | 037.7        | 48.7            |
| 323.0             | 007.2000    | 0099.0      | 029.3        | 121.4             | 002.7000    | 0058.2      | 038.0        | 48.6            |
| 324.0             | 007.2000    | 0098.5      | 029.3        | 120.7             | 002.7000    | 0058.3      | 038.2        | 48.5            |
| 325.0             | 007.2000    | 0098.4      | 029.3        | 120.0             | 002.7000    | 0058.6      | 038.4        | 48.4            |

NEW Channel = 209A Max ERP = 2.7 kW RCAMSL = 445 M N. Lat = 461916 W. Lng = 960536 CP208 BPED980316ME Channel = 208C3 Max ERP = 7.2 kW RCAMSL = 526 M N. Lat = 45 55 55

W. Lng = 95 26 41

Protected 60 dBu Interfering 54 dBu

| Azimuth (degrees) | ERP<br>(kW) | HAAT<br>(m) | Dist<br>(km) | Azimuth (degrees) | ERP<br>(kW) | HAAT<br>(m) | Dist<br>(km) | Actual<br>(dBu) |
|-------------------|-------------|-------------|--------------|-------------------|-------------|-------------|--------------|-----------------|
| 130.0             | 002.7000    | 0049.8      | 016.7        | 311.3             | 007.2000    | 0101.8      | 049.5        | 52,7            |
| 31.0              | 002.7000    | 0050.3      | 016.8        | 311.0             | 007.2000    | 0101.9      | 049.5        | 52.7            |
| <b>⊥32.0</b>      | 002.7000    | 0050.5      | 016.8        | 310.6             | 007.2000    | 0102.1      | 049.4        | 52.8            |
| 133.0             | 002.7000    | 0050.6      | 016.9        | 310.3             | 007.2000    | 0102.6      | 049.4        | 52.8            |
| 134.0             | 002.7000    | 0051.1      | 016.9        | 309.9             | 007.2000    | 0103.0      | 049.3        | 52.9            |
| 135.0             | 002.7000    | 0052.0      | 017.1        | 309.6             | 007.2000    | 0103.4      | 049.2        | 52.9            |
| 136.0             | 002.7000    | 0053.5      | 017.4        | 309.2             | 007.2000    | 0103.6      | 049.0        | 53.1            |
| 137.0             | 002.7000    | 0054.7      | 017.6        | 308.8             | 007.2000    | 0103.6      | 048.8        | 53.1            |
| 138.0             | 002.7000    | 0056.1      | 017.9        | 308.4             | 007.2000    | 0103.5      | 048.6        | 53.2            |
| 139.0             | 002.7000    | 0057.4      | 018.1        | 308.0             | 007.2000    | 0103.5      | 048.4        | 53.2            |
| 140.0             | 002.7000    | 0057.3      | 018.1        | 307.6             | 007.2000    | 0103.5      | 048.5        | 53.2            |
| 1.0               | 002.7000    | 0058.7      | 018.3        | 307.2             | 007.2000    | 0103.3      | 048.4        | 53.2            |
| 142.0             | 002.7000    | 0061.3      | 018.7        | 306.7             | 007.2000    | 0102.9      | 048.1        | 53.3            |
| 143.0             | 002.7000    | 0064.0      | 019.0        | 306.2             | 007.2000    | 0102.6      | 047.8        | 53.4            |
| 144.0             | 002.7000    | 0066.2      | 019.3        | 305.7             | 007.2000    | 0102.2      | 047.6        | 53.4            |
| 145.0             | 002.7000    | 0067.5      | 019.5        | 305.2             | 007.2000    | 0102.1      | 047.6        | 53.5            |
| 146.0             | 002.7000    | 0069.9      | 019.8        | 304.7             | 007.2000    | 0102.9      | 047.4        | 53.6            |
| 147.0             | 002.7000    | 0072.7      | 020.2        | 304.1             | 007.2000    | 0104.0      | 047.2        | 53.8            |
| <b>-48.0</b>      | 002.7000    | 0075.7      | 020.6        | 303.5             | 007.2000    | 0104.2      | 047.0        | 53.8            |
| 149.0             | 002.7000    | 0077.7      | 020.9        | 303.0             | 007.2000    | 0104.1      | 046.9        | 53.9            |
| 150.0             | 002.7000    | 0078.3      | 021.0        | 302.6             | 007.2000    | 0104.0      | 047.0        | 53.8            |
| 151.0             | 002.7000    | 0077.8      | 020.9        | 302.2             | 007.2000    | 0103.9      |              | 53.7            |
| 152.0             | 002.7000    | 0076.0      | 020.7        | 302.0             | 007.2000    | 0103.7      |              | 53.6            |
| 153.0             | 002.7000    | 0073.7      | 020.4        | 301.8             | 007.2000    | 0103.6      |              | 53.4            |
| 154.0             | 002.7000    | 0071.8      | 020.1        | 301.6             | 007.2000    | 0103.5      |              | 53.2            |
| 155.0             | 002.7000    | 0071.0      | 020.0        | 301.3             | 007.2000    | 0103.3      | 048.7        | 53.1            |
| 156.0             | 002.7000    | 0071.0      | 020.0        | 301.0             | 007.2000    | 0102.8      | 048.9        | 53.0            |
| 157.0             | 002.7000    | 0072.2      | 020.2        | 300.5             | 007.2000    | 0102.1      | 049.0        | 52.9            |
| 158.0             | 002.7000    | 0073.3      | 020.3        | 300.1             | 007.2000    | 0101.3      |              | 52.8            |
| 159.0             | 002.7000    | 0073.8      | 020.4        | 299.7             | 007.2000    | 0100.7      |              | 52.7            |
| 160.0             | 002.7000    | 0073.7      | 020.4        | 299.4             | 007.2000    | 0100.1      | 049.5        | 52.6            |



 KUMM
 BLED830509AB
 NEW

 Channel = 209A
 Channel = 209A

 Max ERP = 0.225 kW
 Max ERP = 2.7 kW

 RCAMSL = 364 M
 RCAMSL = 445 M

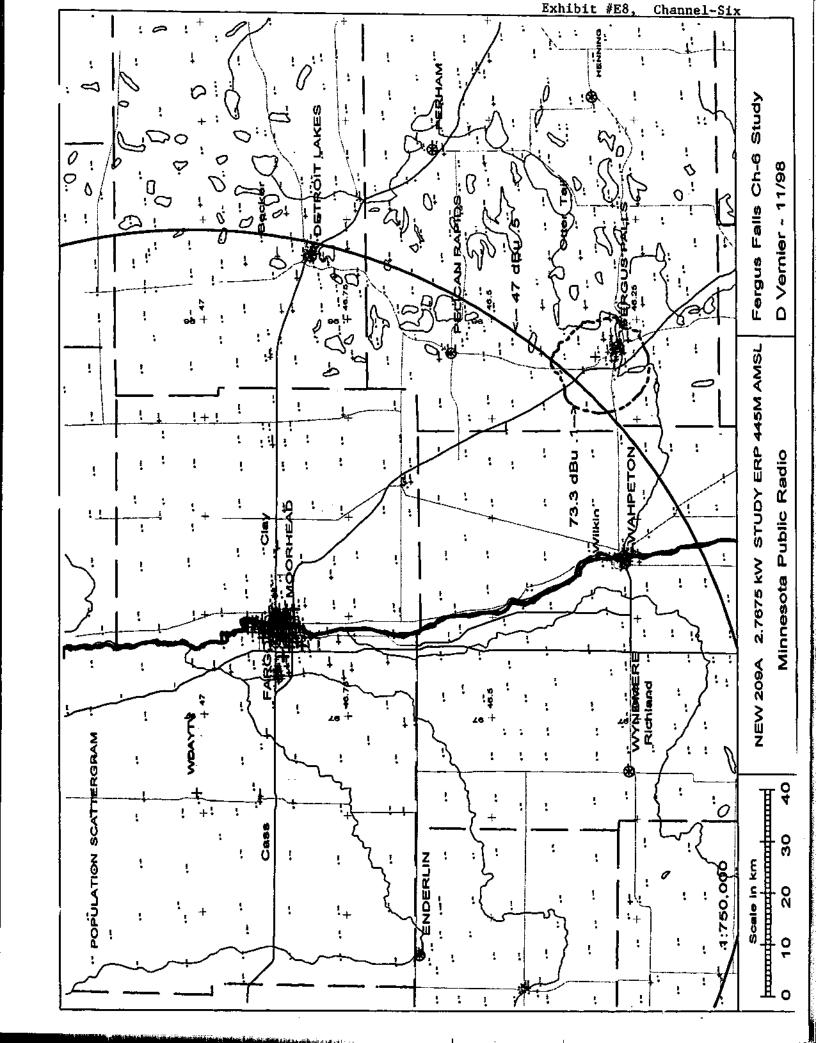
 N. Lat = 45 35 20
 N. Lat = 461916

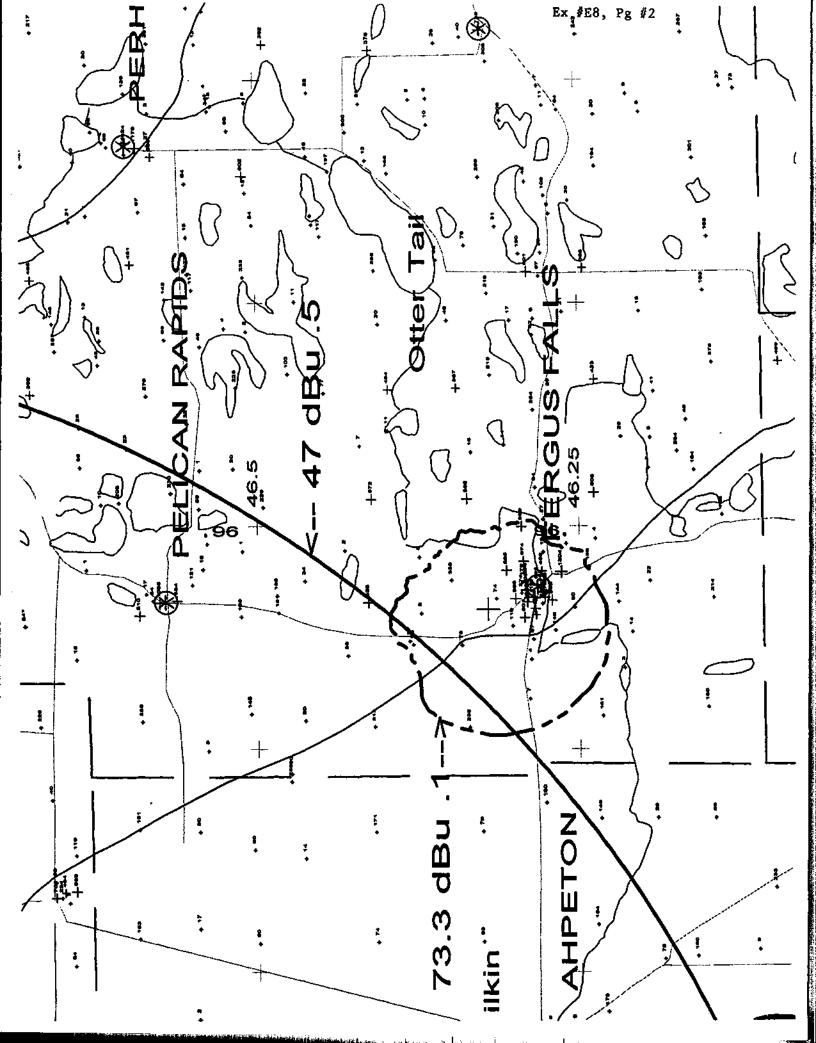
 W. Lng = 95 54 22
 W. Lng = 960536

Protected 60 dBu

Interfering 40 dBu

| Azimuth (degrees) | ERP<br>(kW)      | HAAT<br>(m) | Dist<br>(km) | Azimuth (degrees) | ERP<br>(kW) | HAAT<br>(m) | Dist<br>(km) | Actual<br>(dBu) |
|-------------------|------------------|-------------|--------------|-------------------|-------------|-------------|--------------|-----------------|
| 345.0             | 000.2250         | 0006.5      | 006.9        | 170.3             | 002.7000    | 0078.0      | 075.8        | 38.4            |
| 16.0              | 000.2250         | 0005.7      | 006.9        | 170.2             | 002.7000    | 0077.9      | 075.8        | 38.4            |
| 47.0              | 000.2250         | 0005.2      | 006.9        | 170.1             | 002.7000    | 0077.8      | 075.8        | 38.4            |
| 348.0             | 000.2250         | 0004.9      | 006.9        | 170.0             | 002.7000    | 0077.7      | 075.8        | 38.4            |
| 349.0             | 000.2250         | 0004.7      | 006.9        | 169.9             | 002.7000    | 0077.6      | 075.8        | 38.4            |
| 350.0             | 000.2250         | 0004.9      | 006.9        | 169.9             | 002.7000    | 0077.5      | 075.8        | 38.4            |
| 351.0             | 000.2250         | 0005.3      | 006.9        | 169.8             | 002.7000    | 0077.4      | 075.8        | 38.4            |
| 352.0             | 000.2250         | 0005.9      | 006.9        | 169.7             | 002.7000    | 0077.3      | 075.8        | 38.3            |
| 353.0             | 000.2250         | 0006.0      | 006.9        | 169.6             | 002.7000    | 0077.2      | 075.8        | 38.3            |
| 354.0             | 000.2250         | 0005.9      | 006.9        | 169.5             | 002.7000    | 0077.1      | 075.8        | 38.3            |
| 355.0             | 000.2250         | 0006.2      | 006.9        | 169.4             | 002.7000    | 0077.0      | 075.8        | 38.3            |
| 5.0               | 000.2250         | 0006.9      | 006.9        | 169.3             | 002.7000    | 0076.9      | 075.8        | 38.3            |
| 357.0             | 000.2250         | 0008.1      | 006.9        | 169.2             | 002.7000    | 0076.8      | 075.8        | 38.3            |
| 358.0             | 000.2250         | 0009.5      | 006.9        | 169.1             | 002.7000    | 0076.7      | 075.8        | 38.3            |
| 359.0             | 000.2250         | 0010.8      | 006.9        | 169.0             | 002.7000    | 0076.6      | 075.9        | 38.3            |
| 000.0             | 000.2250         | 0011.9      | 006.9        | 168.9             | 002.7000    | 0076.5      | 075.9        | 38.3            |
| 001.0             | 000.2250         | 0012.9      | 006.9        | 168.9             | 002.7000    | 0076.4      | 075.9        | 38.3            |
| ^02.0             | 000.2250         | 0013.6      | 006.9        | 168.8             | 002.7000    | 0076.3      | 075.9        | 38.2            |
| 03.0              | 000.2250         | 0014.5      | 006.9        | 168.7             | 002.7000    | 0076.2      | 076.0        | 38.2            |
| 004.0             | 000.2250         | 0015.5      | 006.9        | 168.6             | 002.7000    | 0076.0      | 076.0        | 38.2            |
| 005.0             | 000.2250         | 0016.2      | 006.9        | 168.5             | 002.7000    | 0075.9      | 076.0        | 38.2            |
| 006.0             | 000.2250         | 0016.8      | 006.9        | 168.4             | 002.7000    | 0075.8      | 076.1        | 38.2            |
| 007.0             | 000.2250         | 0017.3      | 006.9        | 168.3             | 002.7000    | 0075.7      | 076.1        | 38.2            |
| 008.0             | 000.2250         | 0018.3      | 006.9        | 168.2             | 002.7000    | 0075.7      | 076.1        | 38.2            |
| 009.0             | 000.2250         | 0019.7      | 006.9        | 168.2             | 002.7000    | 0075.6      | 076.2        | 38.1            |
| 010.0             | 000.225 <b>0</b> | 0020.9      | 006.9        | 168.1             | 002.7000    | 0075.5      | 076.2        | 38.1            |
| 011.0             | 000.225 <b>0</b> | 0022.0      | 006.9        | 168.0             | 002.7000    | 0075.5      | 076.3        | 38.1            |
| 012.0             | 000.225 <b>0</b> | 0022.7      | 006.9        | 167.9             | 002.7000    | 0075.4      | 076.3        | 38.1            |
| 013.0             | 000.2250         | 0023.6      | 006.9        | 167.8             | 002.7000    | 0075.4      | 076.4        | 38.1            |
| 014.0             | 000.2250         | 0023.6      | 006.9        | 167.7             | 002.7000    | 0075.3      | 076.4        | 38.1            |
| 015.0             | 000.2250         | 0023.1      | 006.9        | 167.7             | 002.7000    | 0075.3      | 076.5        | 38.0            |





Ex #E8, Pg #3

# Doug Vernier, Telecommunications Consultants Minnesota Public Radio - CH 6 Interference Contour ERP = 2.7 kW Channel = 209

| Azimuth<br>Deg.T. | Ave. Elev.<br>3 to 16 km<br>Meters AMSL | Effective<br>Antenna Height<br>Meters AAT | ERP<br>(dBk) | F(50-10)<br>Distance to<br>73.3 dBu Contour<br>km |
|-------------------|---|---|--------------|---|
| 0                 | 389.2                                   | 55.8                                      | 4.314        | 8.20  |
| 10                | 399.2                                   | 45.8                                      | 4.314        | 7.34  |
| 20                | 397.8                                   | 47.2                                      | 4.314        | 7.45  |
| 30                | 409.7                                   | 35.3                                      | 4.314        | 6.43  |
| 40                | 408.4                                   | 36.6                                      | 4.314        | 6.54  |
| 50                | 409.3                                   | 35.7                                      | 4.314        | 6.46  |
| 60                | 408.5                                   | 36.5 ·                                    | 4.314        | 6.53  |
| 70                | 402.1                                   | 42.9                                      | 4.314        | 7.08  |
| 80                | 404.7                                   | 40.3                                      | 4.314        | 6.86  |
| 90                | 403.5                                   | 41.5                                      | 4.314        | 6.96  |
| 100               | 400.5                                   | 44.5                                      | 4.314        | 7.23  |
| 110               | 391.5                                   | 53.5                                      | 4.314        | 8.00  |
| 120               | 386.4                                   | 58.6                                      | 4.314        | 8.42  |
| 130               | 395.2                                   | 49.8                                      | 4.314        | 7.69  |
| 140               | 387.7                                   | 57.3                                      | 4.314        | 8.32  |
| 150               | 366.7                                   | 78.3                                      | 4.314        | 9.71  |
| 160               | 371.3                                   | 73.7                                      | 4.314        | 9.42  |
| 170               | 367.3                                   | 77.7                                      | 4.314        | 9.67  |
| 180               | 357.8                                   | 87.2                                      | 4.314        | 10.23   |
| 190               | 352.6                                   | 92.4                                      | 4.314        | 10.51   |
| 200               | 345.7                                   | 99.3                                      | 4.314        | 10.88   |
| 210               | 342.7                                   | 102.3                                     | 4.314        | 11.03   |
| 220               | 342.6                                   | 102.4                                     | 4.314        | 11.04   |
| 230               | 343.2                                   | 101.8                                     | 4.314        | 11.00   |
| 240               | 341.9                                   | 103.1                                     | 4.314        | 11.07   |
| 250               | 342.4                                   | 102.6                                     | 4.314        | 11.05   |
| 260               | 344.6                                   | 100.4                                     | 4.314        | 10.93   |
| 270               | 346.8                                   | 98.2                                      | 4.314        | 10.82   |
| 280               | 351.7                                   | 93.3                                      | 4.314        | 10.56   |
| 290               | 353.4                                   | 91.6                                      | 4.314        | 10.47   |
| 300               | 358.7                                   | 86.3                                      | 4.314        | 10.17   |
| 310               | 376.7                                   | 68.3                                      | 4.314        | 9.08  |
| 320               | 390.9                                   | 54.1                                      | 4.314        | 8.05  |
| 330               | 394.7                                   | 50.3                                      | 4.314        | 7.73  |
| 340               | 386.1                                   | 58.9                                      | 4.314        | 8.44  |
| 350               | 384.1                                   | 60.9                                      | 4.314        | 8.59  |
|                   |   |   |              |   |

Ave. = 376.5 M 68.5 M

Antenna Radiation Center AMSL =445 M NGDC 03 Arc Sec.

Geographic Coordinates:

N. Lat. 46 19 16 W. Lng. 96 05 36

Ex #E8, Pg #4

# Doug Vernier, Telecommunications Consultants WDAYTV, FORUM COMMUNICATIONS COMPANY, BMLCT624 ERP = 100 kW Channel = 06Z

| Azimuth<br>Deg.T. | Ave. Elev.<br>3 to 16 km<br>Meters AMSL | Effective<br>Antenna Height<br>Meters AAT | ERP 47<br>(dBk) | F(50-50) Distance to dBu Contour km |
|-------------------|---|---|-----------------|-------------------------------------|
| 0                 | 297.7                                   | 345.3                                     | 20.000          | 106.95                              |
| 10                | 294.9                                   | 348.1                                     | 20.000          | 107.15                              |
| 20                | 292.4                                   | 350.6                                     | 20.000          | 107.33                              |
| 30                | 290.7                                   | 352.3                                     | 20.000          | 107.46                              |
| 40                | 290.3                                   | 352.7                                     | 20.000          | 107.49                              |
| 50                | 287.2                                   | 355.8                                     | 20.000          | 107.71                              |
| 60                | 285.4                                   | 357.6                                     | 20.000          | 107.85                              |
| 70                | 283.4                                   | 359.6                                     | 20.000          | 108.00                              |
| 80                | 282.0                                   | 361.0                                     | 20.000          | 108.11                              |
| 90                | 281.1                                   | 361.9                                     | 20.000          | 108.17                              |
| 100               | 280.2                                   | 362.8                                     | 20.000          | 108.24                              |
| 110               | 279.4                                   | 363.6                                     | 20.000          | 108.31                              |
| 120               | 279.2                                   | 363.8                                     | 20.000          | 108.32                              |
| 130               | 279.2                                   | 363.8                                     | 20.000          | 108.32                              |
| 140               | 279.8                                   | 363.2                                     | 20.000          | 108.27                              |
| 150               | 281.0                                   | 362.0                                     | 20.000          | 108.18                              |
| 160               | 281.8                                   | 361.2                                     | 20.000          | 108.12                              |
| 170               | 282.8                                   | 360.2                                     | 20.000          | 108.04                              |
| 180               | 284.1                                   | 358.9                                     | 20.000          | 107.95                              |
| 190               | 285.3                                   | 357.7                                     | 20.000          | 107.86                              |
| 200               | 286.7                                   | 356.3                                     | 20.000          | 107.75                              |
| 210               | 288.9                                   | 354.1                                     | 20.000          | 107.59                              |
| 220               | 291.4                                   | 351.6                                     | 20.000          | 107.41                              |
| 230               | 294.1                                   | 348.9                                     | 20.000          | 107.21                              |
| 240               | 298.3                                   | 344.7                                     | 20.000          | 106.91                              |
| 250               | 303.1                                   | 339.9                                     | 20.000          | 106.56                              |
| 260               | 307.8                                   | 335.2                                     | 20.000          | 106.23                              |
| 270               | 308.1                                   | 334.9                                     | 20.000          | 106.21                              |
| 280               | 308.8                                   | 334.2                                     | 20.000          | 106.16                              |
| 290               | 308.7                                   | 334.3                                     | 20.000          | 106.17                              |
| 300               | 307.5                                   | 335.5                                     | 20.000          | 106.25                              |
| 310               | 307.8                                   | 335.2                                     | 20.000          | 106.23                              |
| 320               | 307.9                                   | 335.1                                     | 20.000          | 106.22                              |
| 330               | 307.0                                   | 336.0                                     | 20.000          | 106.29                              |
| 340               | 304.6                                   | 338.4                                     | 20.000          | 106.46                              |
| 350               | 301.0                                   | 342.0                                     | 20.000          | 106.71                              |
|                   |   |   |                 |                                     |

Ave. = 292.5 M 350.5 M

Antenna Radiation Center AMSL =643 M NGDC 03 Arc Sec.

Geographic Coordinates:

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

#### **EXHIBIT # E9**

#### R.F. RADIATION COMPLIANCE STATEMENT

Channel 209 – 2.7 kW H & V Fergus Falls, Minnesota

#### November 1998

The proposed antenna will be energized such that it produces 2.7 kW effective radiated power, circularly polarized, from a center of radiation of 61 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, and then by applying a combination of the element and array pattern as defined in E.P.A. study PB85-245868 ("Engineering Assessment of the Potential Impact of the Federal Radiation Protection Guidance on the AM, FM and TV Broadcast Services") a total, head height, non-ionization radiation level of .259 mircowatts per square centimeter was calculated. This calculation uses the Shively 6800 series element and array patterns as measured by the E.P.A. The calculated value amounts to only .12969 percent of the maximum for an uncontrolled area. (200 microwatts per centimeter maximum)

In another application, the applicant proposes to diplex another signal at 91.5 MHz into the same antenna. This proposed station will operate a total of 100 watts ERP. Using the same process as described above it can be calculated that the additional 100 watt signal will generate a total of .01 microwatts per square centimeter at head height which is only .0048 percent of the maximum allowed for a uncontrolled area. Consequently the total percentage of radio frequency emissions equals only .1344 (.12969 + .0048) percent of the FCC's maximum.

The applicant will protect workers on the tower by either reducing ERP or terminating transmission. An agreement is in effect with the business band radio licensees 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.

| SECTION VI - EQUAL EMPLOYMENT OPPORTUNITY P  | ROGRAM   |                  |                     |  |  |  |
|--|--|------------------|---------------------|--|--|--|
| Does the applicant propose to employ five or more full-time emp  | loyees?  | Yes [            | X No                |  |  |  |
| If Yes, the applicant must include an EEO program called for in Opportunity Program Report (FCC Form 396-A). (See also 47 C  | the separate Broadcast Equal Employment .F.R. Section 73.2080.)    |                  |                     |  |  |  |
| SECTION VII - CERTIFICATIONS   |  |                  |                     |  |  |  |
| 1. Has or will the applicant comply with the public notice requ  | irements of 47 C.F.R. Section 73.3580?                             | Not app          | No plicable change) |  |  |  |
| By checking Yes, the applicant certifies, that, in the case of an individual applicant, he or she is not subject to a denial of federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862, or, in the case of a non-individual applicant (e.g., corporation, partnership or other unincorporated association), no party to the application is subject to a denial of federal benefits that includes FCC benefits pursuant to that section. For the definition of a "party" for these purposes, see 47 C.F.R. Section 1.2002(b). |  |                  |                     |  |  |  |
| The APPLICANT hereby waives any claim to the use of any pa<br>States because of the previous use of the same, whether by license<br>this application. (See Section 304 of the Communications Act of<br>The APPLICANT acknowledges that all the statements made in  | e or otherwise, and requests an authorizatio<br>1934, as amended.) | n in accordance  | e with              |  |  |  |
| representations, and that all Exhibits are a material part hereof an   | d incorporated herein.   | considered mat   | terial              |  |  |  |
| The APPLICANT represents that this application is not filed for on any other application with which it may be in conflict.   | r the purpose of impeding, obstructing, or d                       | lelaying determ  | ination             |  |  |  |
| In accordance with 47 C.F.R. Section. 1.65, the APPLICANT h amendments, of any substantial and significant changes in inform   | as a continuing obligation to advise the Co<br>ation furnished.    | ommission, thro  | ough                |  |  |  |
| I certify that the statements in this application are true, complemade in good faith.  | ete, and correct to the best of my knowled                         | ge and belief, a | and are             |  |  |  |
| Name Minnesota Public Radio  | Signature / hauga / KASA   |                  | <del></del>         |  |  |  |
| Title<br>Executive Vice President  | Trimus J 10 J  |                  | <del></del>         |  |  |  |
| Typed or Printed Name of Person Signing Thomas J Kigin   | 1 h muas J Kus<br>Date 98.12.01                                    |                  |                     |  |  |  |

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).

#### WILEY, REIN & FIELDING

1776 K STREET, N.W. WASHINGTON, O. C. 20006 (202) 429-7000



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FEDERAL COMMUNICATIONS COMMISSION DEFICE OF THE SECRETARY

> FACSIMILE (202) 429-7049

WRITER'S DIRECT DIAL NUMBER

December 8, 1998

(202) 429-7351

#### By Hand

Magalie R. Salas, Secretary Federal Communications Commission 1919 M Street, N.W. Room 222 Washington, D.C. 20554

Re:

FCC Form 340

Application for New Noncommercial Educational FM Station

Fergus Falls, Minnesota

Dear Ms. Salas:

Transmitted herewith, in triplicate, on behalf of Minnesota Public Radio, is an application on FCC Form 340 for a construction permit for a new, noncommercial educational FM station on Channel 209A at Fergus Falls, Minnesota. This application does not require a filing fee.

Please contact the undersigned should you have any questions regarding this application.

Respectfully submitted,

Kulle

E. Joseph Knoll, III

Enclosures

cc:

Mitzi T Gramling