



United States of America  
**FEDERAL COMMUNICATIONS COMMISSION**  
**FM BROADCAST STATION LICENSE**

Official Mailing Address:  
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MINNESOTA PUBLIC RADIO  
 45 EAST SEVENTH ST.  
 SAINT PAUL, MN 55101  
 -----

Authorizing Official:

*James A. Durant*  
 -----  
 Daniel J Fontaine  
 Supervisory Engineer  
 Audio Services Division  
 Mass Media Bureau

Grant Date: **MAY 01 1997**

Call Sign: **KNCM**

This license expires 3:00 a.m.  
 local time, April 01, 2005

License File No.: **BLED-970131KC**

This license covers Permit No.: **BPED-941108MB**  
 As last modified by Permit No.: **BMPED-960627IL**

Subject to the provisions of the Communications Act of 1934, subsequent acts and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions set forth in this license, the licensee is hereby authorized to use and operate the radio transmitting apparatus herein described.

This license is issued on the licensee's representation that the statements contained in licensee's application are true and that the undertakings therein contained so far as they are consistent herewith, will be carried out in good faith. The licensee shall, during the term of this license, render such broadcasting service as will serve the public interest, convenience, or necessity to the full extent of the privileges herein conferred.

This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequency designated in the license beyond the term hereof, nor in any other manner than authorized herein. Neither the license nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934. This license is subject to the right of use or control by the Government of the United States conferred by Section 606 of the Communications Act of 1934.

Name of Licensee:

MINNESOTA PUBLIC RADIO

Station Location:

MN-APPLETON

Frequency (MHz): 88.5

Channel: 203

Class: C2

Hours of Operation: Unlimited

Main Studio Address:

MN-45 EAST SEVENTH STREET, SAINT PAUL

Transmitter location (address or description):

MN-1.62 KM SOUTH OF HIGHWAY 59, 2.88 KM SOUTH-SOUTHEAST OF APPLETON

Remote Control Point Address:

MN - 45 EAST SEVENTH STREET, SAINT PAUL

Transmitter: Type Accepted. See Sections 73.1660, 73.1665 and 73.1670 of the Commission's Rules.

Transmitter output power: 19.0 kW

Antenna type: (directional or non-directional): Non-Directional

Description: SHIVELY 6810-4R, FOUR SECTIONS

Antenna Coordinates: North Latitude : 45 10 3  
 West Longitude : 96 0 2

	Horizontally Polarized Antenna	Vertically Polarized Antenna
Effective radiated power in the Horizontal Plane (kW).....:	34	34
Height of radiation center above ground (Meters).....:	168	168
Height of radiation center above mean sea level (Meters).....:	479	479
Height of radiation center above average terrain (Meters).....:	172	172

Antenna structure registration number: none

Overall height of antenna structure above ground (including obstruction lighting if any): 392 Meters

Obstruction marking and lighting specifications for antenna structure:

It is to be expressly understood that the issuance of these specifications is in no way to be considered as precluding additional or modified marking or lighting as may hereafter be required under the provisions of Section 303(q) of the Communications Act of 1934, as amended.

PARAGRAPH A . . , FCC FORM 715-A (MAY 1985):

There shall be installed at the top of the antenna structure a white capacitor discharge omnidirectional light which conforms to FAA/DOD Specification L-856, High Intensity Obstruction Lighting Systems. This light shall be mounted on the highest point of the structure. If the antenna or other appurtenance at its highest point is incapable of supporting the omnidirectional light, one or more such lights shall be installed on a suitable adjacent support with the lights mounted not more than 20 feet below the tip of the appurtenance. The lights shall be positioned so as to permit unobstructed viewing of at least one light from aircraft at any normal angle of approach. The light unit(s) shall emit a beam with a peak intensity around its periphery of approximately 20,000 candelas during daytime and twilight, and approximately 4,000 candelas at night.

PARAGRAPH B . . , FCC FORM 715-A (MAY 1985):

There shall be installed at the top of the skeletal or other main support structure three or more high intensity light units which conform to FAA/DOD Specification L-856 High Intensity Obstruction Lighting Systems. The complement of units shall emit a white high intensity light and produce an effective intensity of not less than 200,000 candelas (daytime) uniformly about the antenna structure in the horizontal plane. The effective intensity shall be reduced to approximately 20,000 candelas at twilight, and to approximately 4,000 candelas at night. The light units shall be mounted in a manner to ensure unobstructed viewing from aircraft at any normal angle of approach, so that the effective intensity of the full beam is not impaired by any structural member of the skeletal framework. The units will normally be adjusted so that the center of the beam is in the horizontal plane.

## PARAGRAPH E . . , FCC FORM 715-A (MAY 1985):

At the approximate one-fourth, one-half and three-fourths levels of the skeletal tower there shall be installed three or more high intensity light units which conform to FAA/DOD Specification L-856, High Intensity Obstruction Lighting Systems. The complement of units shall emit a white high intensity light and produce an effective intensity of not less than 200,00 candelas (daytime) uniformly about the antenna structure in the horizontal plane. The effective intensity shall be reduced to approximately 20,000 candelas at twilight, and to approximately 4,000 candelas at night. The light units shall be mounted in a manner to ensure unobstructed viewing from aircraft at any normal angle of approach, so that the effective intensity of the full beam is not impaired by any structural member of the skeletal framework. The normal angular adjustment of the beam centers above the horizontal shall be three degrees at the one-fourth level, two degrees at the one-half level and one degree at the three-fourths level.

## PARAGRAPH H . . , FCC FORM 715-A (MAY 1985):

All lights shall be synchronized to flash simultaneously at 40 pulses per minute. The light system shall be equipped with a light sensitive control device which shall face the north sky and cause the intensity steps to change automatically when the north sky illumination on a vertical surface is as follows:

1. Day to Twilight: Shall not occur before the illumination drops to 60 footcandles, but shall occur before it drops to 30 footcandles.
2. Twilight to Night: Shall not occur before the illumination drops to 5 footcandles, but shall occur before it drops to 2 footcandles.
3. Night to Day: The intensity changes listed in 1. and 2. above shall be reversed in transitioning from the night to day modes.

The tower authorized herein shall be lighted in accordance with the following paragraphs:

Paragraphs A,B,E,H,I of FCC Form 715A (DAY AND NIGHT) or

Paragraphs 3,8,17,21 of FCC Form 715 (NIGHT) and

Paragraphs A,B,E,H,I of FCC Form 715 (DAY)

Special operating conditions or restrictions:

1. Waiver of 47 C.F.R. Section 73.1125 is granted to allow operation of the facility authorized by this license as a satellite operation of the following station: KNOW(FM), St. Paul, Minnesota.
2. The permittee/licensee in coordination with other users of the site must reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency radiation in excess of FCC guidelines.

\*\*\* END OF AUTHORIZATION \*\*\*