

Name of Licensee: TRI-COUNTY BROADCASTING, INC.

Station Location: SAULK RAPIDS, MN

Frequency (kHz): 660

Station Class: B

Antenna Coordinates:

Day

Latitude: N 45 Deg 36 Min 18 Sec

Longitude: W 94 Deg 08 Min 21 Sec

Night

Latitude: N 45 Deg 36 Min 18 Sec

Longitude: W 94 Deg 08 Min 21 Sec

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

Nominal Power (kW): Day: 10.0 Night: 0.50

Antenna Input Power (kW): Day: 10.5 Night: 0.54

Antenna Mode: Day: DA Night: DA

(DA=Directional Antenna, ND=Non-directional Antenna; CH=Critical Hours)

Current (amperes): Day: 14.51 Night: 3.29

Resistance (ohms): Day: 50 Night: 50

Antenna Registration Number(s):

Day:

Tower No.	ASRN	Overall Height (m)
1	1024200	
2	1024202	

Night:

Tower No.	ASRN	Overall Height (m)
1	1024199	
2	1024201	
3	1024202	

DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM

Theoretical RMS (mV/m/km): Day: 948.37 Night: 202.92

Standard RMS (mV/m/km): Day: 966.4 Night: 213.33

Augmented RMS (mV/m/km):

Q Factor: Day: Night:

Theoretical Parameters:

Day Directional Antenna:

Tower No.	Field Ratio	Phasing (Deg.)	Spacing (Deg.)	Orientation (Deg.)	Tower Ref Switch *	Height (Deg.)
1	1.0000	0.000	0.0000	0.000	0	70.0
2	0.7800	90.000	90.0000	195.000	0	70.0

* Tower Reference Switch

0 = Spacing and orientation from reference tower

1 = Spacing and orientation from previous tower

Theoretical Parameters:

Night Directional Antenna:

Tower No.	Field Ratio	Phasing (Deg.)	Spacing (Deg.)	Orientation (Deg.)	Tower Ref Switch *	Height (Deg.)
1	1.0000	0.000	0.0000	0.000	0	70.0
2	0.6800	-49.000	132.0000	276.000	0	70.0
3	0.1000	-30.000	119.6000	228.000	0	70.0

* Tower Reference Switch

0 = Spacing and orientation from reference tower

1 = Spacing and orientation from previous tower

Day Directional Operation:

Twr. No.	Phase (Deg.)	Antenna Monitor Sample Current Ratio
2	-86	0.805
4	0	1

Night Directional Operation:

Twr. No.	Phase (Deg.)	Antenna Monitor Sample Current Ratio
1	-49	0.68
3	0	1
4	-30	0.16

Antenna Monitor: POTOMAC INSTRUMENTS AM-19(204)

Sampling System Approved Under Section 73.68 of the Rules.

Monitoring Points:

Day Operation:

Radial (Deg. T)	Distance From Transmitter (kM)	Maximum Field Strength (mV/m)
195	2.37	66

Night Operation:

Radial (Deg. T)	Distance From Transmitter (kM)	Maximum Field Strength (mV/m)
84.5	3.78	9.1
273.5	1.92	105.6

Special operating conditions or restrictions:

- 1 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 electromagnetic fields in excess of FCC guidelines.

- 2 Location of Monitoring Points:

Daytime:

Direction of 195° true North. Proceed on 5th Street South and make a right on 13th Avenue South and proceed North 0.12 miles to the monitor point. The monitor point is located at the curb next to the telephone company pedestal identified at "SPL-PT".

Nighttime:

Direction of 84.5° true North. From the WBHR transmitter site driveway turn left onto 10th Avenue NE and continue south approximately 0.4 miles to Golden Spike Road. Turn left on Golden Spike Road and continue northeast approximately 2.85 mile to 35th Ave. NW. Turn right and continue south 0.7 miles to point at "Narrow Bridge" sign.

Direction of 273.5° true North. From the WBHR transmitter site driveway turn left onto 10th Ave. NE and continue south approximately 0.4 miles to Golden Spike Road. Turn right on Golden Spike Road (which turns into Second Street North) and continue west approximately 1.5 miles to 9th Ave. North. Turn right and continue northwest 0.7 miles to point at utility pedestals at 1300 9th Ave. NE.

- 3 Ground system consists of 120-113.7 meters equally spaced buried radials about the base of each tower and extending to the intersection with transverse copper strap. In addition 120-18.29 meters copper radials are interspersed with the longer radials.

*** END OF AUTHORIZATION ***