

## **United States of America**

# FEDERAL COMMUNICATIONS COMMISSION AM BROADCAST STATION LICENSE

Authorizing Official:

Official Mailing Address:

LEIGHTON RADIO HOLDINGS, INC.

P.O. BOX 1458

619 WEST ST. GERMAIN ST.

ST. CLOUD MN 56301

Facility Id: 21400

Call Sign: KBRF

License File Number: BMML-20171221AFK

This license covers Permit No.: BP-20171127ACH

Son Nguyen

Supervisory Engineer

Audio Division

Media Bureau

Grant Date: SEP 2 0 2018
This license expires 3:00 a.m. local time, April 01, 2021.

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.

Subject to the provisions of the Communications Act of 1934, subsequent

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.

Hours of Operation: Unlimited

Average hours of sunrise and sunset: Local Standard Time (Non-Advanced)

Jan.	8:00	AM	5:00	PM	Jul.	4:45	AM	8:15	PM
Feb.	7:30	MA	5:45	PM	Aug.	5:15	AM	7:30	PM
Mar.	6:45	AM	6:30	PM	Sep.	6:00	AM	6:45	PM
Apr.	5:45	AM	7:15	PM	Oct.	6:45	AM	5:45	PM
May	4:45	AM	7:45	PM	Nov.	7:30	MA	4:45	PM
Jun.	4:30	AM	8:15	PM	Dec.	8:00	AM	4:45	PM

Callsign: KBRF License No.: BMML-20171221AFK

Name of Licensee: LEIGHTON RADIO HOLDINGS, INC.

Station Location: FERGUS FALLS, MN

Frequency (kHz): 1250

Station Class: B

#### Antenna Coordinates:

Day

Latitude: N 46 Deg 16 Min 24 Sec Longitude: W 96 Deg 02 Min 44 Sec

Night

Latitude: N 46 Deg 16 Min 27 Sec Longitude: W 96 Deg 02 Min 46 Sec

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

Nominal Power (kW): Day: 5.0 Night: 2.2

Antenna Input Power (kW): Day: 5.0 Night: 2.373

Antenna Mode: Day: ND Night: DA

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

Current (amperes): Day: 3.3 Night: 6.89

Resistance (ohms): Day: 460 Night: 50

Non-Directional Antenna: Day

Radiator Height: 85.9 meters; 128.9 deg Theoretical Efficiency: 332 mV/m/kw at 1km

### Antenna Registration Number(s):

Day:

Tower No. ASRN Overall Height (m)

3 1024481

Night:

Tower No. ASRN Overall Height (m)

1 1024482

2 1024483

3 1024481

Callsign: KBRF License No.: BMML-20171221AFK

DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM

Theoretical RMS (mV/m/km): Night: 484.41

Standard RMS (mV/m/km): Night: 508.87

Augmented RMS (mV/m/km):

Q Factor:

Night:

Theoretical Parameters:

Night Directional Antenna:

Tower	Field Ratio	Phasing (Deg.)	Spacing (Deg.)	Orientation (Deg.)	Tower Ref Switch *	Height (Deg.)
1	1.0000	0.000	0.0000	0.000	0	151.6
2	0.9230	-39.500	120.5000	319.500	0	146.1
3	1.0080	-24.200	160.5000	149.500	0	128.9

<sup>\*</sup> Tower Reference Switch

- 0 = Spacing and orientation from reference tower
- 1 = Spacing and orientation from previous tower

## Night Directional Operation:

Twr	. Phase	Antenna Monitor
No.	(Deg.)	Sample Current Ratio
1	24.6	0.744
2	-20.2	0.933
3	0	1

Antenna Monitor: POTOMAC INSTRUMENTS AM-19 (204)

Sampling System Approved Under Section 73.68 of the Rules.

Special operating conditions or restrictions:

- Ground system consists of 120 equally spaced, buried, copper radials, 60 meters in length except where shortened and bonded to a transverse strap between towers.
- The permittee/licensee 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.