

UNITED STATES OF AMERICA  
FEDERAL COMMUNICATIONS COMMISSION  
AM BROADCAST STATION LICENSE

File No. : BZ-941031AA  
FAC ID: 34419  
Call Sign : KFEQ

LICENSEE: KFEQ, Inc.

- 1. Community of License . . . : St. Joseph, Missouri
- 2. Transmitter location. .... : 5.5 miles north-northeast of St. Joseph, Missouri
- North Latitude . . . . . : 39° 49' 43"
- West Longitude . . . . . : 94° 48' 20"
- 6. Antenna and ground system:  
Attached

- 3. Transmitter(s): Type Accepted. See Sections 73.1660, 73.1665 and 73.1670 of the Commission's rules)
- 4. Main Studio Location: (See Section 73.1125)  
4305 Frederick Avenue  
St. Joseph, Missouri
- 5. Remote control location  
4305 Frederick Avenue  
St. Joseph, Missouri

7. Obstruction marking and lighting specifications - FCC Form 715, paragraphs: 1, 3, 12 & 21.

8. Frequency . . . . . : 680 kHz

9. Nominal power (kW) . . . . . : 5.0 Day 5.0 Night

Antenna input power (kW) :

5.4	Day	<input type="checkbox"/> Non-directional antenna	current	5.59	amperes:	resistance	173	ohms.
		<input checked="" type="checkbox"/> Directional antenna	:					

5.4	Night	<input type="checkbox"/> Non-directional antenna	current	5.59	amperes:	resistance	173	ohms.
		<input checked="" type="checkbox"/> Directional antenna	:					

10. Hours of operation : As in BR-635 (Unlimited)

11. Conditions . . . . . : --

Subject to the provisions of the Communications Act of 1934, as amended, subsequent Acts, Treaties, and Commission rules made thereunder, and further subject to conditions set forth in this license,<sup>1</sup> the LICENSEE is hereby authorized to use and operate the radio transmitting apparatus herein described for the purpose of broadcasting for the term ending 3 A.M. Local Time  
February 1, 1997

The Commission reserves the right during said license period of terminating this license or making effective any change, or modification of this license which may be necessary to comply with any decision of the Commission rendered as a result of any hearing held under the rules of the Commission prior to the commencement of this license period.

The license is issued on the licensee's representation that the statements contained in the 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, as amended. This license is subject to the right of control by the Government of the United States conferred by section 606 of the Communications Act of 1934, as amended.

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FEDERAL  
COMMUNICATIONS  
COMMISSION



<sup>1</sup> This license consists of this page and pages 2, 3, 4 & 5

Dated: FEB 15 1995

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1. **DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM**

**No. and Type of Elements:** Four uniform cross-section, guyed, series-excited, vertical radiators. Theoretical RMS: 685.58 mV/m at 1 km, night; 683.97 mV/m at 1 km, day. Augmented PTN RMS: 725.81 mV/m at 1 km, night; 733.69 mV/m at 1km, day. Q = 22.36, night; 29.97, day.

**Height above Insulators:** 100.6 m (82°)

**Overall Height:** 102.4 m

**Spacing and Orientation:** Tower 1, 2, and 3 spaced 116.6 m (95°) between adjacent towers. Tower 3 and 4 spaced 233.2 m (190°). Line of towers bears 93° true.

**Non-Directional Antenna:** None authorized.

**Ground System consists of 120-91.4 m buried copper radials equally spaced plus a 7.3 m x 7.3 m copper ground screen under each tower.**

2. **THEORETICAL SPECIFICATIONS**

<b>Towers:</b>		<b>E(#1)</b>	<b>EC(#2)</b>	<b>WC(#3)</b>	<b>W(#4)</b>
<b>Phasing:</b>	Night:	0°	--	0°	0°
	Day:	-19.5°	142.9°	19.5°	--
<b>Field Ratio:</b>	Night:	0.81	--	1.80	1.0
	Day:	1.26	1.868	1.0	--

3. **OPERATING SPECIFICATIONS**

**Phase Indication\*:**

Night:	4.0°	--	0°	-3.0°
Day:	169.0°	0°	-127.0°	--

**Antenna Base Current Ratio:**

Night:	0.54	--	1.0	0.488
Day:	.722	1.0	0.476	--

**Antenna Monitor Sample Current Ratio:**

Night:	0.56	--	1.0	0.479
Day:	0.735	1.0	0.498	--

\* As indicated by Potomac Instruments AM-19 (204) Antenna Monitor.  
Antenna sampling system approved under Section 73.68 (b) of the Rules.

**DESCRIPTION OF AND FIELD INTENSITY AT MONITORING POINTS:**

**Direction of 67° True North.** Start from the transmitter driveway and US Highway 71 (Belt Highway). Proceed south on US-71, 1.75 miles to the junction of US-169. Turn left and proceed on US-169 Northeast for 2.75 miles to the intersection of Castle Road. Turn right (east) and travel 1 mile to the "Y" at the end of the road. Turn left (north) and proceed .10 mile, taking road just past wooden bridge across creek. Reading is taken from center of road. This is point number 9 on the N. 67°E. radial which is 1.89 miles away from the antenna. The field intensity measured at this point should not exceed 192.3 mV/m, day.

**Direction of 180° True North.** Start from the transmitter driveway and US Highway 71 (Belt Highway). Proceed south on US-71 for 3.75 miles to intersection of Frederick Boulevard. Turn right (west) on Frederick Boulevard and proceed .25 miles west to Woodson Loop on the grounds of the State Hospital. Enter the loop on the west side and take the right turn onto Panttiere. Proceed to the driveway at the rear of the three story building on south side of Panttiere. Reading is taken on yard at midpoint between the building and Frederick Avenue to the north. This is point number 12 on the N. 180° E. radial which is 3.51 miles away from the antenna. The field intensity measured at this point should not exceed 95.5 mV/m, day.

**Direction of 206° True North.** Start from the transmitter driveway and US Highway 71 (Belt Highway). Proceed south on US-71 Highway two miles, just past US-169, to Ashland Avenue. Turn right (west) on Ashland two blocks to blinking yellow light at intersection of Lover's Lane. Turn right (west) and proceed on Lover's Lane for 1 mile to 4 way stop at 22nd Street. Turn left (south) and proceed two blocks to Marion Street. Turn right one block to Eugene Field Avenue. Turn left (south) and proceed 1/3 block to third house on right. 2110 Eugene Field Avenue. Reading is taken on east side of street opposite the front door of this house. This is point number 10 on the N 206° E radial which is 3.19 miles away from the antenna. The field intensity measured at this point should not exceed 100.3 mV/m, day.

**Direction of 330° True North.** Start from the transmitter driveway and US Highway 71 (Belt Highway). Proceed north on US-71 .2 miles to intersection of US-59 Highway. Turn left and proceed southwest on US-59 1 mile to intersection of State Road "DD". Turn right on "DD" and proceed north approximately 3 miles to gravel road on left. Turn left (west) and proceed .2 miles to a point where creek to south has eroded close to road. This point is also halfway between the fourth and fifth utility poles from State Road "DD". Reading is taken in the center of the gravel road. This is point number 8 on the N 330° E radial which is 2.95 miles away from the antenna. The field intensity measured at this point should not exceed 87.7 mV/m, day.

**DESCRIPTION OF AND FIELD INTENSITY AT MONITORING POINTS:**

**Direction of 73.5° True North.** Start from the transmitter driveway and US Highway 71 (Belt Highway). Proceed south on US-71 for 1.75 miles to the junction of US-169. Turn left and proceed on US-169 Northeast for 2.75 miles to the intersection of Castle Road. Turn right (east) and travel 1 mile to "Y" at the end of the road. Turn right (south) and proceed .1 mile south to dirt road that is to the left. The point is .05 miles down this road (east) adjacent to white outbuilding on farmland to the South. Reading is taken from the center of the road. This is point number 3 on the N 73.5° E radial which is 1.8 miles away from the antenna. The field intensity measured at this point should not exceed 23.7 mV/m, night.

**Direction of 103° True North.** Start from the transmitter driveway and US Highway 71 (Belt Highway). Proceed south on US-71 for 1.75 miles to the junction of US-169. Turn left and proceed on US-169 northeast for 1.75 miles to intersection of Andrew County Road 307. Proceed right (east) on County Road 307 two miles to County Road 304. Turn left (north) .05 miles to large post at end of fence, also at the crest of a small hill. Reading is taken in center of road. This is point number 3 on the N 103° E radial which is 1.73 miles from the antenna. The field intensity measured at this point should not exceed 51.7 mV/m, night.

**Direction of 203.4° True North.** Start from the transmitter driveway and US Highway 71 (Belt Highway). Proceed south on US-71 two miles, just past US-169, to Ashland Avenue. Turn right (west) on Ashland two blocks to blinking yellow light at intersection of Lover's Lane. Turn right (west) and proceed on Lover's Lane for 2.2 miles to intersection of Jones Street. This is one block past a large school on left (east) side of street. At Jones Street, turn left (east) and proceed 1/3 block to house at 1812 Jones Street. Reading is taken in center of street in front of this house. This is point number 11 on the N 203.4° E radial which is 3.9 miles away from the antenna. The field intensity measured at this point should not exceed 160 mV/m, night.

**Direction of 245° True North.** Start from the transmitter driveway and US Highway 71 (Belt Highway). Proceed north on US-71 .2 miles to intersection of US-59 Highway. Turn left and proceed southwest on US-59 for 2 miles to intersection of State Road "K". Turn right (northwest) and proceed .1 miles to a hollow on right side of road, adjacent to driveway marked as "5601 K Highway." Reading is taken on northeast side of "K" Highway in center of hollow. This is point number 6 on the N 245° E radial which is 1.89 miles away from the antenna. The field intensity measured at this point should not exceed 14.3 mV/m, night.

**Direction of 273° True North.** Start from the transmitter driveway and US Highway 71 (Belt Highway). Proceed north US-71 .2 miles to intersection of US-59 Highway. Turn left and proceed Southwest on US-59 for 1 mile to intersection of State Road "DD". Turn right on DD and immediately cross west to gravel road, Andrew County Road 381. Proceed on County Road 381 .05 mile to driveway of house on north side of road. Reading is taken in center of road by driveway and mailbox. This is point number 4 on the N 273° E radial which is 1.45 miles away from the antenna. The field intensity measured at this point should not exceed 11.2 mV/m, night.

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**DESCRIPTION OF AND FIELD INTENSITY AT MONITORING POINTS:**

**Direction of 302° True North.** Start from the transmitter driveway and US Highway 71 (Belt Highway). Proceed north on US-71 .2 miles to intersection US-59 Highway. Turn left and proceed across US-59 to Ridgeland Road. Proceed west on Ridgeland .6 miles to the St. Joseph country Club main parking lot. There is a blacktop road proceeding north from this lot to maintenance building on north side of property. Proceed on this road to a point half-way between the creek at the bottom of the hill and the road north of the maintenance building. Reading is taken in center of service road just south of gravel parking area. This is point number 1 on the N 302° E radial which is 1.0 miles away from the antenna. The field intensity measured at this point should not exceed 56 mV/m, night.