F.C.C. FORM NO. 352
REV. JANUARY, 1951

UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
FOR MAIN TRANSMITTER
STANDARD BROADCAST STATION LICENSE
MODIFIED AS OF SEPTEMBER 10, 1959

File No. BL-7559
Call Letters KFEQ

Subject to the provisions of the Communications Act of 1934, subsequent Acts, and Treaties, and Commission Rules made thereunder, and further subject to conditions set forth in this license, 1/ the LICENSEE

KFEQ BROADCASTING CO.

is hereby authorized to use and operate the radio transmitting apparatus hereinafter described for the purpose of broadcasting for the term beginning September 10, 19 59 (3 a.m., Eastern Standard Time) and ending February 1, 19 62 (3 a.m., Eastern Standard Time)

The licensee shall use and operate said apparatus only in accordance with the following terms:

1. On a frequency of 680 kc.
2. With 5 kilo watts power X directional antenna nighttime [common point current, 5.56 amperes; common point resistance, 161.9 ohms]
   and 5 kilo watts power X directional antenna daytime [common point current, 5.56 amperes; common point resistance, 161.9 ohms]
3. During the following period or periods of time: Unlimited time.
   Average hours of local sunrise and sunset:
   Jan. 7:45 am to 5:15 pm; Feb. 7:15 am to 6:00 pm;
   Mar. 6:30 am to 6:30 pm; Apr. 5:45 am to 7:00 pm;
   May 5:00 am to 7:30 pm; June 4:45 am to 7:45 pm;
   July 5:00 am to 7:45 pm; Aug. 5:30 am to 7:15 pm;
   Sep. 6:00 am to 6:30 pm; Oct. 6:30 am to 5:45 pm;
   Nov. 7:00 am to 5:00 pm; Dec. 7:30 am to 5:00 pm;
   Central Standard Time.

   The licensee hereunder is granted a waiver of Section 3.30(a) of the Commission Rul to permit location of main st outside city limits of St. Joseph, Missouri.
4. With the station located at:
   St. Joseph, Missouri

   Transmitter may be operated by Remote Control from 40th and Faraon Streets, St. Joseph, Missouri. (See page 1(a).
5. With the main studio located at:
   40th and Faraon Streets
   St. Joseph, Missouri

The apparatus herein authorized to be used and operated is located at:
5½ miles north-northeast of
St. Joseph, Missouri

North Lat. 39° 49' 43"
West Long. 94° 48' 20"

and is described as follows:
GATES RADIO CO., Type BC-5P2, Broadcasting Transmitter.

Obstruction marking specifications in accordance with paragraphs 1, 3, 12 and 20 of FCC Form 715 attached.

The Commission reserves the right during said license period of terminating this license or making effective any changes 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 or any decision rendered as a result of any such hearing which has been designated but not held, prior to the commencement of this license period.

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 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.

1/ This license consists of this page and pages 1(a), 2, 3 and 4

Dated this 10th day of September, 19 59

FEDERAL COMMUNICATIONS COMMISSION,

Mary Jane Morris
Secretary

sms

F.C.C. - Washington, D. C.

The authority granted herein is subject to the following conditions:

1) During remote control operation, remote indications of antenna base current for each tower, and common point current shall be read and entered in the operating log at least once each half-hour. Phase indications and phase monitor sample currents shall be read and entered in the operating log once each day for each pattern.

2) The indications at the transmitter, of the common point current, base current, phase monitor sample loop currents and phase indications shall be read and entered in the operating log once each day for each pattern. These readings must be made within two hours after the commencement of operation with the directional antennas by remote control.

3) Field intensity measuring equipment shall be available at all times and the field intensity at each of the monitoring points shall be measured at least once every thirty days and an appropriate record kept of all measurements so made.

FCC Form 353-A
October 1954

File No. BL-7559 *Call Letters* K F E Q *Date* 9-10-59

1. DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM *DA-* 2

No. and Type of Elements: Four uniform cross-section, guyed, series-excited, vertical radiators.

Height above Insulators: 330' (82°)

Overall Height: 336'

Spacing and Orientation: Towers 1, 2 and 3, spaced 382.5' (95°) between adjacent towers. Towers 3 and 4 spaced 765' (190°). Line of towers bears 93° true.

Non-Directional Antenna: None used.

Ground System consists of 120-300' buried copper radials equally spaced plus a 24' x 24' copper ground screen under each tower.

2. THEORETICAL SPECIFICATIONS

		East Tower (1)	E. Center Tower (2)	W. Center Tower (3)	West Tower (4)
Phasing:	Night	0°	-	0°	0°
	Day	-19.5°	142.9°	19.5°	-
Field Ratio:	Night	0.81	-	1.80	1.0
	Day	1.26	1.868	1.0	-

3. OPERATING SPECIFICATIONS

Phase Indication:*	Night	-133°	-	302°	0°
	Day	-245°	-324°	0°	-
Antenna Base Current Ratio:	Night	1.04	-	1.95	1.0
	Day	1.49	2.10	1.0	-
Phase Monitor Sample Current Ratio:	Night	1.04	-	1.95	1.0
	Day	1.49	2.10	1.0	-

**As indicated by* RCA 300-C *phase monitor.*

Phase indications and antenna base currents shall be read and entered in the operating log at least on each hour Phase monitor sample currents may be read and logged in lieu of base curren provided base currents are read and logged at least once weekly, for each pattern.

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Field measuring equipment shall be available at all times, and the field intensity at each of the monitoring points shall be measured at least once every seven days and an appropriate record kept of all measurements so made.

DESCRIPTION OF AND FIELD INTENSITY AT MONITORING POINTS:

Direction of 67° true North. Distance from transmitter, 1.89 miles. Start at transmitter driveway. Proceed 1.5 miles south on U.S. 71 to junction U.S. 169; 2.75 miles left on U.S. 169 to first cross-road north of line of towers. Cross road is at top of hill about 0.6 mile from line of towers. Proceed 1 mile east on crossroad to end of road, then 0.15 mile north over a small hill and across creek to farm land on the right. Measuring point is located on drive at point where drive turns left (north) into the farmyard. The field intensity measured at this point should not exceed 167 mv/m. DAY.

Direction of 73.5° true North. Proceed south from the monitoring point described for North 67° for the daytime array for about 0.2 mile to the first road left (east). The monitoring point is on the road 0.05 mile from the north-south road. The distance from KFEQ is 1.8 miles. The field intensity measured at this point should not exceed 22 mv/m.NIGHT.

Direction of 103° true North. Proceed south (on the north-south road) from the monitoring point on the North 73.5° East radial for approximately one mile to the end of the road. The monitoring point is 0.85 mile from the end of the road. The distance to KFEQ is 1.73 miles. The field intensity measured at this point should not exceed 44.8 mv/m NIGHT.

Direction of 180° true North. Start at transmitter driveway. Proceed 3.6 miles south on U.S. 71 (taking by-pass) to junction U.S. 36: go 0.27 mile west on U.S. 36 to driveway into orphanage on north side of U.S. 36. Measuring point is opposite driveway on south side of and about 100 feet from U.S. 36. A large evergreen tree is about 30 feet west of measuring point. Distance from the transmitter 3.51 miles. The field intensity measured at this point should not exceed 36.5 mv/m Day.

Direction of 203.4° true North. Proceed south on 22nd Street in St. Joseph to Jones Street, thence turn right (west) for slightly less than three blocks. The monitoring point is in the middle of the street in front of 1812 Jones Street. The distance to the transmitter is 3.9 miles. The field intensity measured at this point should not exceed 160 mv/m. NIGHT.

DESCRIPTION OF AND FIELD INTENSITY AT MONITORING POINTS: (Continued)

Direction of 206° true North. Start at transmitter driveway. Proceed 1.8 miles south on U.S. 71 to point where U.S. 71 turns south on Ashland Avenue and intersection of Lovers Lane. Go southwest on Lovers Lane to 22nd Street, south on 22nd Street to Marion Street, one block west on Marion Street to Eugene Field Avenue; 1/3 block south (uphill) on Eugene Field Avenue, to monitoring point located at large tree stump on east side of street. Distance from transmitter - 3.19 miles. The field intensity measured at this point should not exceed 75 mv/m. DAY.

Direction of 245° true North. Proceed North from KFEQ for about 0.2 miles and turn sharp left on U.S. 275 and 59. Follow the highway for about 2.1 miles to the junction with county highway K. Turn sharp right (northwest) on highway K, and go about 0.1 mile to a hollow which has been somewhat filled in by grading the road. The monitoring point is on the road at the center of this hollow. The distance from KFEQ is 1.89 miles. The field intensity measured at this point should not exceed 12.3 mv/m NIGHT.

Direction of 273° true North. Proceed north from KFEQ for 0.2 mile and turn toward St. Joseph on U.S. 275, as described above. Continue on U.S. 275 for about one mile until U.S. 275 turns south. At the end of this turn there is a road to the right (west). Follow this road, crossing the railroad tracks and continue for a few hundred feet to a house on the right (north) side of the road near the base of the hill. The monitoring point is in the middle of the road even with the fence just east of the house. The distance from KFEQ is 1.45 miles. The field intensity measured at this point should not exceed 11.2 mv/m NIGHT.

Direction of 302° true North. Proceed north from KFEQ for about 0.2 mile and start to turn left on U.S. 275. Instead of following U.S. 275, cross this highway and continue on a black top road. In about 0.6 mile this road ends in the parking lot for the golf course. At the north edge of the parking lot is a road. Follow this road for a few hundred feet, crossing a creek. The monitoring point is on this road halfway between the creek and the junction of the road and a road running east and west. The distance from KFEQ is 1.0 mile. The field intensity measured at this point should not exceed 56 mv/m NIGHT.

Direction of 330° true North. Start at transmitter driveway. Proceed 2.75 miles north on U.S. 71 to first crossroad. Go 1.9 miles west to second crossroad just less than 0.3 mile west of bridge over creek, then 0.5 mile north to point where road makes slight jog to the right, thence 400 feet from north turn in jog to the measuring point on top of slight hill in the road. Distance from the transmitter 3.64 miles. The field intensity measured at this point should not exceed 78.5 mv/m DAY.

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