



United States of America
FEDERAL COMMUNICATIONS COMMISSION
AM BROADCAST STATION LICENSE

Authorizing Official:

Official Mailing Address:

BOARD OF TRUSTEES, MICHIGAN STATE UNIVERSITY
 WKAR-AM/FM/TV
 404 WILSON RD, ROOM 212
 EAST LANSING MI 48824

Son Nguyen
 Son Nguyen
 Supervisory Engineer
 Audio Division
 Media Bureau

Facility Id: 41684

Call Sign: WKAR

License File Number: BML-20170814ABM

Grant Date: **NOV 9 2017**

This license expires 3:00 a.m.
 local time, October 01, 2020.

This license modifies license no.: BZ-19890124AC
 Coordinates correction

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.

Hours of Operation: Unlimited

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

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

Callsign: WKAR

License No.: BML-20170814ABM

Name of Licensee: BOARD OF TRUSTEES, MICHIGAN STATE UNIVERSITY

Station Location: EAST LANSING, MI

Frequency (kHz): 870

Station Class: D

Antenna Coordinates:

Day

Latitude: N 42 Deg 42 Min 22 Sec

Longitude: W 84 Deg 28 Min 31 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

Antenna Input Power (kW): Day: 10.5

Antenna Mode: Day: DA

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

Current (amperes): Day: 14.51

Resistance (ohms): Day: 50

Antenna Registration Number(s):

Day:

Tower No.	ASRN	Overall Height (m)
1	1001090	
2	1001091	

DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM

Theoretical RMS (mV/m/km): Day: 949.51

Standard RMS (mV/m/km):

Augmented RMS (mV/m/km): Day: 999.87

Q Factor: Day: 31.62

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	95.6
2	0.4000	-134.000	80.0000	330.000	0	95.6

* Tower Reference Switch

0 = Spacing and orientation from reference tower

1 = Spacing and orientation from previous tower

Augmentation Parameters:

Aug No.	Central Azimuth (Deg. T)	Span (Deg.)	Radiation at Central Azimuth (mV/m @ 1 km)
1	96.0	48.0	675.92
2	175.0	50.0	724.20
3	204.0	58.0	675.92

Day Directional Operation:

Twr. No.	Phase (Deg.)	Antenna Monitor Sample Current Ratio
1	0	1
2	-15	0.46

Antenna Monitor: POTOMAC INSTRUMENTS 1901-2

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)
96	7.96	52.81
150	4.65	122.94
204	4.5	120.52

Special operating conditions or restrictions:

1 Ground system consists of: 120 equally spaced, buried, copper radials 91.4 meters in length about the base of each tower.

2 DESCRIPTION TO MONITORING POINTS:

Direction of 96° True North: Proceed 0.32 km E. from transmitter on Forest Road to Beaumont Road. Then S. 0.8 km on Beaumont to Bennett Road. Then proceed E. on Bennett 0.8 km to Hagadorn Road. Then proceed S. on Hagadorn 1.61 km to Jolly Road. Then E. on Jolly 6.76 km to Vanatta Road. Then proceed N. on Vanatta 1.61 km to bridge. The monitoring point is located 45.7 m N. of this bridge on the eastern edge of Vanatta. The distance is 7.96 km from the antenna. The field intensity measured at this point should not exceed 52.81 mV/m.

Direction of 150° True North: Proceed 0.32 km E. from transmitter on Forest Road to Beaumont Road. Then S. 0.8 km on Beaumont to Bennett Road. Then proceed E. on Bennett 0.8 km to Hagadorn road. Then proceed S. 3.14 km on Hagadorn past Jolly Road and over the Freeway to Sandhill Road. Then proceed E. on Sandhill 0.64 km past Hulett Road to large Sycamore Tree on the South side of Sandhill. The monitor point is on the S. side of Sandhill 22.9 m E. of the Sycamore Tree. The distance is 4.65 km from the antenna. The field intensity measured at this point should not exceed 122.94 mV/m.

Direction of 204° True North: Proceed West from transmitter 0.72 km on Forest Road to College Road. Proceed S. on College 4.0 km to Sandhill Road. Then proceed W. on Sandhill 1.13 km to mail box at 3871 Sandhill. The monitoring point is located 45.7 m west of mail box on the S. side of Sandhill. The distance is 4.5 km from the antenna. The field intensity measured at this point should not exceed 120.52 mV/m.

*** END OF AUTHORIZATION ***