United States of America

FEDERAL COMMUNICATIONS COMMISSION

AM BROADCAST STATION LICENSE

Authorizing Official:

Official Mailing Address:

IHM LICENSES, LLC
7136 S. YALE AVENUE
SUITE 501
TULSA OK 74136

Son Nguyen
Supervisory Engineer
Audio Division
Media Bureau

Grant Date: September 12, 2019

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

Facility Id: 59969

Call Sign: WDFN

License File Number: BMML-20190718AAS

This license authorizes direct measurement of power.

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	6:00 PM	Aug.	5:45 AM	7:30 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	7:45 PM	Nov.	7:15 AM	5:15 PM
Jun.	5:00 AM	8:15 PM	Dec.	8:00 AM	5:00 PM

Callsign: WDFN License No.: BMML-20190718AAS

Name of Licensee: IHM LICENSES, LLC

Station Location: DETROIT, MI

Frequency (kHz): 1130

Station Class: B

Antenna Coordinates:

		Day				
Latitude:	N	42	Deg	06	Min	39 Sec
Longitude:	W	83	Deg	11	Min	52 Sec

		Night				
Latitude:	N	42	Deg	06	Min	39 Sec
Longitude:	W	83	Deg	11	Min	52 Sec

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

Nominal Power (kW): Day: 50.0 Night: 10.0

Antenna Input Power (kW): Day: 52.7 Night: 10.5

Antenna Mode: Day: DA Night: DA

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

Current (amperes): Day: 32.45 Night: 14.51

Resistance (ohms): Day: 50 Night: 50

Antenna Registration Number(s):

Day:

Tower No.	ASRN	Overall Height (m)
4	1006926	
5	1006927	

Night:

Tower No.	ASRN	Overall Height (m)
1	1006923	
2	1006924	
3	1006925	
4	1006926	
5	1006927	
6	1006928	
7	1006929	
8	1006930	
9	1006931	

DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM

Theoretical RMS (mV/m/km): Day: 2253.08 Night: 930.36

Standard RMS (mV/m/km):

Augmented RMS (mV/m/km): Day: 2369.8 Night: 1033.11

Q Factor: Day: 70.71 Night:

Theoretical Parameters:

Day Directional Antenna:

Tower No.	Field Ratio	Phasing (Deg.)	Spacing (Deg.)	Orientation (Deg.)	Tower Ref Switch *	Height (Deg.)
4	3.9750	-52.500	0.0000	0.000	0	115.0
5	2.9750	52.500	90.0000	181.500	0	115.0

* 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	181.5	33.0	820.77
2	198.0	33.0	619.60
3	215.0	10.0	531.08
4	250.0	20.0	1403.35

Theoretical Parameters:

Night Directional Antenna:

Tower No.	Field Ratio	Phasing (Deg.)	Spacing (Deg.)	Orientation (Deg.)	Tower Ref Switch *	Height (Deg.)
1	1.0000	-99.100	0.0000	0.000	0	115.0
2	1.9850	0.000	90.0000	181.500	0	115.0
3	1.0000	99.100	90.0000	181.500	1	115.0
4	1.9620	-99.100	203.5000	271.500	0	115.0
5	3.8950	0.000	90.0000	181.500	1	115.0
6	1.9620	99.100	90.0000	181.500	1	115.0
7	1.0000	-99.100	407.0000	271.500	0	115.0
8	1.9850	0.000	90.0000	181.500	1	115.0
9	1.0000	99.100	90.0000	181.500	1	115.0

* 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	1.5	15.0	3130.08
2	9.0	15.0	2960.79
3	25.0	47.0	1885.00
4	51.5	20.0	100.42
5	61.5	20.0	56.33
6	71.5	20.0	20.92
7	81.5	20.0	37.01
8	91.5	20.0	56.33
9	101.5	20.0	43.77
10	111.5	20.0	31.22
11	121.5	20.0	28.97
12	173.5	33.0	111.00
13	190.0	16.0	48.28
14	198.0	16.0	48.28
15	211.0	26.0	48.28
16	224.5	25.0	100.00
17	237.0	25.0	48.28
18	250.0	10.0	107.90
19	255.0	10.0	80.47
20	271.5	14.0	51.02
21	278.5	10.0	54.40
22	281.5	10.0	70.00
23	286.5	10.0	48.28
24	291.5	10.0	48.28
25	300.0	17.0	56.33
26	309.0	18.0	176.22
27	330.0	40.0	1067.54
28	350.0	23.0	2742.32

Day Directional Operation:

Twr. No.	Phase (Deg.)	Antenna Monitor Sample Current Ratio
4	-93.6	1.196
5	0	1

Night Directional Operation:

Twr. No.	Phase (Deg.)	Antenna Monitor Sample Current Ratio
1	-74.6	0.269
2	-1.6	0.536

Night Directional Operation:

Twr. No.	Phase (Deg.)	Antenna Monitor Sample Current Ratio
3	89.7	0.262
4	-80.3	0.508
5	0	1
6	91.3	0.568
7	-75.2	0.272
8	-2.1	0.558
9	89.7	0.273

Antenna Monitor: POTOMAC INSTRUMENTS AM-1901

Sampling System Approved Under Section 73.68 of the Rules.

Special operating conditions or restrictions:

1 The ground system consists of 120 equally spaced, buried, copper radials about the base of each tower, each 91.2 meters in length except where terminated by property boundaries or where intersecting radials are shortened and bonded to a transverse copper strap midway between adjacent towers, plus a 14.6 meter square copper mesh ground screen about the base of each tower.

2 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.

*** END OF AUTHORIZATION ***