

# **United States of America**

# FEDERAL COMMUNICATIONS COMMISSION AM BROADCAST STATION CONSTRUCTION PERMIT

Authorizing Official:

Official Mailing Address:

BIRACH BROADCASTING CORPORATION 21700 NORTHWESTERN HWY STE 1190 TOWER 14

SOUTHFIELD MI 48075

Facility Id: 55089

Call Sign: WMFN

Permit File Number: BP-20140715AAF

Son Nguyen Supervisory Engineer

Audio Division

Media Bureau

Grant Date: April 13, 2015

This permit expires 3:00 a.m. local time, 36 months after the grant date specified above.

Permit to change site, patterns, and city of license.

Subject to the provisions of the Communications Act of 1934, as amended, subsequent acts and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions set forth in this permit, the permittee is hereby authorized to construct the radio transmitting apparatus herein described. Installation and adjustment of equipment not specifically set forth herein shall be in accordance with representations contained in the permittee's application for construction permit except for such modifications as are presently permitted, without application, by the Commission's Rules.

Commission rules which became effective on February 16, 1999, have a bearing on this construction permit. See Report & Order, Streamlining of Mass Media Applications, MM Docket No. 98-43, 13 FCC RCD 23056, Para. 77-90 (November 25, 1998); 63 Fed. Reg. 70039 (December 18, 1998). Pursuant to these rules, this construction permit will be subject to automatic forfeiture unless construction is complete and an application for license to cover is filed prior to expiration. See Section 73.3598.

Equipment and program tests shall be conducted only pursuant to Sections 73.1610 and 73.1620 of the Commission's Rules.

Hours of Operation: Unlimited

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

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

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Name of Permittee: BIRACH BROADCASTING CORPORATION

Station Location: PEOTONE, IL

Frequency (kHz): 640

Station Class: B

# Antenna Coordinates:

Day

Latitude: N 41 Deg 18 Min 04 Sec Longitude: W 87 Deg 50 Min 07 Sec

Night

Latitude: N 41 Deg 18 Min 04 Sec Longitude: W 87 Deg 50 Min 07 Sec

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

Nominal Power (kW): Day: 4.4 Night: 1.6

Antenna Mode: Day: DA Night: DA

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

# Antenna Registration Number(s):

#### Day:

Tower No. ASRN Overall Height (m)
1 1295010
2 1295011

2 12950113 1295012

4 1295013

## Night:

Tower No. ASRN Overall Height (m)

1 1295010

2 1295011

3 1295012

4 1295013

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#### DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM

Theoretical RMS (mV/m/km): Day: 592.57 Night: 377.57 Standard RMS (mV/m/km): Day: 622.59 Night: 396.67

Augmented RMS (mV/m/km):

Q Factor: Day: Night:

## 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	TL/S
2	1.0600	-6.500	175.0000	305.000	0	TL/S
3	1.1100	108.500	84.0000	250.000	0	TL/S
4	1.0100	102.000	175.0000	305.000	1	TL/S

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

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

Top-Loaded/Sectionalized Tower Parameters: (See 47 CFR 73.160)

Tower No.	A	В	С	D
1	63.0	12.00	.00	.00
2	70.0	12.00	.00	.00
3	70.0	12.00	.00	.00
4	63.0	12.00	.00	.00

# Theoretical Parameters:

Night Directional Antenna:

Height (Deg.)	Tower Ref Switch *	Orientation (Deg.)	Spacing (Deg.)	Phasing (Deg.)	Field Ratio	Tower
TL/S	0	0.000	0.0000	0.000	1.0000	1
TL/S	0	305.000	175.0000	-66.000	0.9650	2
TL/S	0	250.000	84.0000	104.500	1.0000	3
TL/S	1	305.000	175.0000	56.000	1.1500	4

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

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

Top-Loaded/Sectionalized Tower Parameters: (See 47 CFR 73.160)

Tower No.	A	В	C	D
1	63.0	12.00	.00	.00
2	70.0	12.00	.00	.00
3	70.0	12.00	.00	.00

Top-Loaded/Sectionalized Tower Parameters: (See 47 CFR 73.160)

Tower No.	A	В	С	D
4	63.0	12.00	.00	.00

Inverse Distance Field Strength:

The inverse distance field strength at a distance of one kilometer from the above antenna in the directions specified shall not exceed the following values:

# Day:

Azimuth:	Radiation:	
113.5	26.2	mV/m
139	25.2	mV/m
218.5	31.8	mV/m
266	24.5	mV/m

## Night:

Azimuth:	Radiation:	
80.5	15.4	mV/m
165	53.9	mV/m
217	80.8	mV/m
296	43.5	mV/m

Special operating conditions or restrictions:

1 The permittee must submit a proof of performance as set forth in either Section 73.151(a) or 73.151(c) of the rules before program tests are authorized.

A proof of performance based on field strength measurements, per Section 73.151(a), shall include a complete nondirectional proof of performance, in addition to a complete proof on the (day) and (night) directional antenna system. The nondirectional and directional field strength measurements must be made under similar environmental conditions. The proof(s) of performance submitted to the Commission must contain all of the data specified in Section 73.186 of the rules.

Permittees who elect to submit a moment method proof of performance, as set forth in Section 73.151(c), must use series-fed radiators. In addition, the sampling system must be constructed as described in Section 73.151(c) (2) (i).

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Special operating conditions or restrictions:

2 Permittee shall install a type accepted transmitter, or submit application (FCC Form 301) along with data prescribed in Section 73.1660(b) should non-type accepted transmitter be proposed.

- A license application (FCC Form 302) to cover this construction permit must be filed with the Commission pursuant to Section 73.3536 of the Rules before the permit expires.
- 4 Licensee shall be responsible for satisfying all reasonable complaints of blanketing interference within the 1 V/m contour as required by Section 73.88 of the Commission's rules.
- Before program tests are authorized, permittee shall submit sufficient current distribution measurement data to establish clearly that the current distribution approximates that of an antenna with electrical height of 75 degrees for towers #1 and #4, and 82 degrees for towers #2 and 3, as proposed.
- Ground system consists of 120 equally spaced, buried, copper radials about the base of each tower, each 117.1 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.

\*\*\* END OF AUTHORIZATION \*\*\*