



United States of America  
**FEDERAL COMMUNICATIONS COMMISSION**  
**AM BROADCAST STATION CONSTRUCTION PERMIT**

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

Facility Id: 11271

Call Sign: KEX

Permit File Number: BP-20021010AAF

Grant Date: February 05, 2004

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

Construction Permit to augment the 74 degree night radial.

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. | 7:45 AM | 5:00 PM | Jul. | 4:30 AM | 8:00 PM |
| Feb. | 7:15 AM | 5:30 PM | Aug. | 5:15 AM | 7:15 PM |
| Mar. | 6:30 AM | 6:15 PM | Sep. | 5:45 AM | 6:30 PM |
| Apr. | 5:30 AM | 7:00 PM | Oct. | 6:30 AM | 5:30 PM |
| May  | 4:45 AM | 7:30 PM | Nov. | 7:15 AM | 4:45 PM |
| Jun. | 4:15 AM | 8:00 PM | Dec. | 7:45 AM | 4:30 PM |

Callsign: KEX

Permit No.: BP-20021010AAF

Name of Permittee: IHM LICENSES, LLC

Station Location: PORTLAND, OR

Frequency (kHz): 1190

Station Class: A

Antenna Coordinates:

Day

Latitude: N 45 Deg 25 Min 20 Sec

Longitude: W 122 Deg 33 Min 57 Sec

Night

Latitude: N 45 Deg 25 Min 20 Sec

Longitude: W 122 Deg 33 Min 57 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: 50.0

Antenna Mode: Day: ND Night: DA

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

Antenna Registration Number(s):

Day:

| Tower No. | ASRN    | Overall Height (m) |
|-----------|---------|--------------------|
| 1         | 1037776 |                    |

Night:

| Tower No. | ASRN    | Overall Height (m) |
|-----------|---------|--------------------|
| 1         | 1037777 |                    |
| 2         | 1037776 |                    |
| 3         | 1037778 |                    |

DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM

Theoretical RMS (mV/m/km): Night: 2824.4

Standard RMS (mV/m/km):

Augmented RMS (mV/m/km): Night: 2977.9

Q Factor: Night:

Theoretical Parameters:

Night Directional Antenna:

| Tower No. | Field Ratio | Phasing (Deg.) | Spacing (Deg.) | Orientation (Deg.) | Tower Ref Switch * | Height (Deg.) |
|-----------|-------------|----------------|----------------|--------------------|--------------------|---------------|
| 1         | 0.5500      | -118.000       | 120.0000       | 270.000            | 0                  | 196.0         |
| 2         | 1.0000      | 0.000          | 35.0000        | 285.000            | 0                  | 196.0         |
| 3         | 0.6100      | 60.000         | 120.0000       | 90.000             | 0                  | 196.0         |

\* 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       | 40.0                     | 10.0        | 965.61                                     |
| 2       | 46.5                     | 13.0        | 836.86                                     |
| 3       | 53.0                     | 12.0        | 692.02                                     |
| 4       | 59.0                     | 10.0        | 568.10                                     |
| 5       | 64.0                     | 10.0        | 482.80                                     |
| 6       | 69.0                     | 10.0        | 410.38                                     |
| 7       | 74.0                     | 10.0        | 1050.00                                    |
| 8       | 80.5                     | 13.0        | 421.65                                     |
| 9       | 87.0                     | 10.0        | 418.43                                     |
| 10      | 92.0                     | 10.0        | 418.43                                     |
| 11      | 97.0                     | 10.0        | 437.74                                     |
| 12      | 102.0                    | 10.0        | 461.88                                     |
| 13      | 107.0                    | 10.0        | 495.68                                     |
| 14      | 114.5                    | 15.0        | 563.27                                     |
| 15      | 122.0                    | 15.0        | 611.55                                     |
| 16      | 129.5                    | 15.0        | 526.26                                     |
| 17      | 137.0                    | 15.0        | 326.12                                     |
| 18      | 146.0                    | 16.0        | 241.40                                     |
| 19      | 154.0                    | 13.6        | 643.74                                     |
| 20      | 160.8                    | 10.0        | 1021.93                                    |

Non-Directional Antenna: Day

Radiator Height: 138.7 meters; 196 deg

Theoretical Efficiency: 403.9 mV/m/kw at 1km

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:

Night:

| Azimuth: | Radiation:  |
|----------|-------------|
| 40       | 965.6 mV/m  |
| 74       | 1050 mV/m   |
| 122      | 611.5 mV/m  |
| 146      | 241.4 mV/m  |
| 160.8    | 1021.9 mV/m |

Special operating conditions or restrictions:

- 1 The permittee/licensee 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.
- 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.
- 3 The license application to cover this authorization may refer to and rely upon the technical data contained in the engineering report filed October 10, 2002 to establish that the array is adjusted to within the pattern authorized herein.
- 4 Ground System: 120 equally spaced, buried, copper radials about the base of each tower, each 137.2 meters in length except where intersecting radials are shortened and bonded to a transverse copper strap midway between adjacent towers, plus a copper ground screen 12.2 meters square, about the base of each tower.
- 5 This authorization is conditioned on the final outcome of the pending appeal filed on behalf of WOWO(AM), Ft. Wayne, Indiana (and WKGA, WLIB) appealing the Commission act of December 23, 1999 granting license BL-19981230AE to WOWO as a Class B facility. Should WOWO be reinstated to Class A status, this authorization shall become null and revert back to its previously licensed parameters (BL-19910906AD).

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