Key

F.C.C. FORM NO. 352
JUNE 1964

UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION

File No. BL-10,879
Call Letters WERK

STANDARD BROADCAST STATION LICENSE

Official No. 4465

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

MUNCIE BROADCASTING CORPORATION

is hereby authorized to use and operate the radio transmitting apparatus hereinafter described for the purpose of broadcasting for the term beginning May 19 (3 a.m., Eastern Standard Time), 19 65, and ending August 1 (3 a.m., Eastern Standard Time), 19 67

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

1. On a frequency of 990 kc.
2. With - watts power - directional antenna nighttime [- - - current, - amperes; - - - resistance, - ohms]
   and 250 watts power - directional antenna daytime [Common Point current, 2.28 amperes; Common Point resistance, 48.1 ohms]
3. During the following period or periods of time: Daytime as follows:
   Jan. 8:00am to 5:45pm; Feb. 7:30am to 6:15pm;
   Mar. 7:00am to 6:45pm; Apr. 6:00am to 7:15pm;
   May 5:30am to 7:45pm; June 5:15am to 8:15pm;
   July 5:30am to 8:15pm; Aug. 5:45am to 7:45pm;
   Sep. 6:15am to 6:45pm; Oct. 6:45am to 6:00pm;
   Nov. 7:30am to 5:30pm; Dec. 8:00am to 5:15pm;
   Eastern Standard Time.

   Pending a resolution of the proceeding in Docket No. 14419 no pre-sunrise operation will be permitted under the provisions of 47 CFR 73.87.
4. With the station located at:
   Muncie, Indiana
5. With the main studio located at:
   Indiana Hwy. Rt. #3
   3.38 mi. S. of city limits of
   Muncie, Indiana

The apparatus herein authorized to be used and operated is located at:
Indiana Hwy. Rt. #3
3.38 mi. S. of city limits of
Muncie, Indiana

North Lat. 40° 06' 54"
West Long. 85° 22' 02"

and is described as follows: GATES BC-250GY (Type) Broadcasting Transmitter.

(or other transmitter currently listed in the Commission's "Radio Equipment List, Part B, Aural Broadcast Equipment" for the power herein authorized).

Obstruction marking specifications in accordance with paragraphs 1,3,11 and 21 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 2 & 3.

Dated: May 19, 1965

FEDERAL COMMUNICATIONS COMMISSION,

Ben F. Waple
Secretary

cb

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

FCC Form 353-A
October 1954

File No. BL-10,879 *Call Letters* WERK *Date* 5-19-65

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

No. and Type of Elements: Six uniform cross-section, guyed, series-excited vertical steel towers.

Height above Insulators: 250' (90.6°)

Overall Height: 254'

Spacing and Orientation: Towers are located in 2 parallel rows with 3 towers in each spaced 700.43' (253.8°) between adjacent elements on a line bearing 90° True. The two rows are spaced 358.77' (130°) on a line bearing 145° True.

Non-Directional Antenna: None Used.

Ground System consists of 120-300' equally spaced copper radials plus 120-100' interspaced copper radials about the base of each tower. Intersecting radials are shortened and bonded to transverse copper radials about the base of each towers. The ground system of towers #1 and #6 are limited to East and West respectively.

2. THEORETICAL SPECIFICATIONS

	NW(#1)	NC(#2)	NE(#3)	SW(#4)	SC(#5)	(SE#6)
Phasing:	0°	-5°	-14°	105.4°	100.4°	91.4°
Field Ratio:	1.0	1.0276	0.3	0.8	0.8221	0.24

3. OPERATING SPECIFICATIONS

Phase Indication:*	0°	-6°	-16°	104°	95°	78°
Antenna Base Current Ratio:	1.00	1.01	0.29	0.72	0.76	0.21
Phase monitor sample Current Ratio:	1.00	1.01	0.29	0.72	0.76	0.21

**As indicated by* Nems Clarke 108-E *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 current provided base currents are read and logged at least once daily.

Field measuring equipment being available at all times and the field intensity at each of the monitoring points being 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 50° True North. Leaving the transmitter go north on Highway 3 1.25 miles to the intersection with county road 400S. Then turn right (east). Go. 0.5 miles to Tee intersection with 150E. Turn left (north) and go 0.5 miles to second Tee intersection. Turn right (east) on 350S and proceed 1.50 miles to the Monitor Point. The location is about 25 feet inside entrance to REES Cemetary. This point is 2.9 miles from WERK. The field intensity measured at this point should not exceed 4.37 mv/m.

Direction of 65° True North. Proceed as in going to Monitor Point No. 1. However continue on past No. 1 on the same road 1.0 miles to location No. 2. The reading is taken about 25 feet south of the road, by a small bush. This point is about 3.5 miles from WERK. The field intensity measured at this point should not exceed 3.47 mv/m.

Direction of 90° True North. Proceed as in going to Monitor Point No. 2. However continue on past No. 2 on the same road thru New Burlington to a dead end by the lake. The reading is taken in the road by a large dirt pile. This point is 4.1 miles from WERK. The field intensity measured at this point should not exceed 3.07 mv/m.

Direction of 135° True North. Proceed south from the transmitter on Highway 3 1.7 miles to the intersection with "700S". Turn left (east) and proceed 1.8 miles to the Maplewood Golf Course. The measuring location is about 50 feet southwest of the sign. This point is about 2.5 miles from WERK. The field intensity measured at this point should not exceed 4.52 mv/m.

Direction of 215° True North. Proceed south on highway 3 from the transmitter for 3.1 miles to Luray Road ("95N"). Turn right (west) and go 2.2 miles to the monitor point. The measuring location is 30 feet south of the wooden gate. This point is about 4.0 miles from WERK. The field intensity measured at this point should not exceed 1.04 mv/m.

Direction of 315° True North. Proceed north from transmitter on Highway 3 for 0.3 miles to an intersection from the west. Turn left (west) on "500S" and go 1.75 miles to Cowan Road (100W). Turn right (north) on Cowan Road and go 2.0 miles to Highway 67. Turn left (west) on Highway 67 and go 0.4 miles to monitor point. The measuring point is about 20 feet south of the roadway near three large trees. This point is about 3.4 miles from WERK. The field intensity measured at this point should not exceed 6.22 mv/m.

FCC Form 715
February 1960

ANTENNA TOWER(S) OR SUPPORTING STRUCTURE(S)

It is to be expressly understood that the issuance of these specifications is in no way to be considered as precluding additional or modified marking or lighting as may hereafter be required under the provisions of Section 303(q) of the Communications Act of 1934, as amended.

1 Antenna structures shall be painted throughout their height with alternate bands of aviation surface orange and white, terminating with aviation surface orange bands at both top and bottom. The width of the bands shall be equal and approximately one-seventh the height of the structure, provided however, that the bands shall not be more than 40 feet nor less than 1-1/2 feet in width. All towers shall be cleaned or repainted as often as necessary to maintain good visibility.

2 There shall be installed at the top of the tower at least two 100-, 107-, 111- or 116-watt lamps (#100 A21/TS, #107 A21/TS, #111 A21/TS or #116 A21/TS, respectively) enclosed in aviation red obstruction light globes. The two lights shall burn simultaneously from sunset to sunrise and shall be positioned so as to insure unobstructed visibility of at least one of the lights from aircraft at any angle of approach. A light sensitive control device or an astronomic dial clock and time switch may be used to control the obstruction lighting in lieu of manual control. When a light sensitive device is used it should be adjusted so that the lights will be turned on at a north sky light intensity level of about thirty-five foot candles and turned off at a north sky light intensity level of about fifty-eight foot candles.

3 There shall be installed at the top of the structure one 300 m/m electric code beacon equipped with two 500- or 620-watt lamps (PS-40, Code Beacon type), both lamps to burn simultaneously, and equipped with aviation red color filters. Where a rod or other construction of not more than 20 feet in height and incapable of supporting this beacon is mounted on top of the structure and it is determined that this additional construction does not permit unobstructed visibility of the code beacon from aircraft at any angle of approach, there shall be installed two such beacons positioned so as to insure unobstructed visibility of at least one of the beacons from aircraft at any angle of approach. The beacons shall be equipped with a flashing mechanism producing not more than 40 flashes per minute nor less than 12 flashes per minute with a period of darkness equal to one-half of the luminous period.

4 At approximately one-half of the over-all height of the tower one similar flashing 300 m/m electric code beacon shall be installed in such position within the tower proper that the structural members will not impair the visibility of this beacon from aircraft at any angle of approach. In the event this beacon cannot be installed in a manner to insure unobstructed visibility of it from aircraft at any angle of approach, there shall be installed two such beacons. Each beacon shall be mounted on the outside of diagonally opposite corners or opposite sides of the tower at the prescribed height.

5 At approximately two-fifths of the over-all height of the tower one similar flashing 300 m/m electrice code beacon shall be installed in such position within the tower proper that the structural members will not impair the visibility of this beacon from aircraft at any angle of approach. In the event this beacon cannot be installed in a manner to insure unobstructed visibility of it from aircraft at any angle of approach, there shall be installed two such beacons. Each beacon shall be mounted on the outside of diagonally opposite corners or opposite sides of the tower at the prescribed height.

6 On levels at approximately two thirds and one third of the over-all height of the tower one similar flashing 300 m/m electric code beacon shall be installed in such position within the tower proper that the structural members will not impair the visibility of this beacon from aircraft at any angle of approach. In the event these beacons cannot be installed in a manner to insure unobstructed visibility of it from aircraft at any angle of approach, there shall be installed two such beacons. Each beacon shall be mounted on the outside of diagonally opposite corners or opposite sides of the tower at the prescribed height.

7 On levels at approximately four-sevenths and two-sevenths of the overall height of the tower one similar flashing 300 m/m electric code beacon shall be installed in such position within the tower proper that the structural members will not impair the visibility of this beacon from aircraft at any angle of approach. In the event these beacons cannot be installed in a manner to insure unobstructed visibility of the beacons from aircraft at any angle of approach, there shall be installed two such beacons, at each level. Each beacon shall be mounted on the outside of diagonally opposite corners or opposite sides of the tower at the prescribed height.

8 On levels at approximately three-fourths, one-half and one-fourth of the over-all height of the tower one similar flashing 300 m/m electric code beacon shall be installed in such position within the tower proper that the structural members will not impair the visibility of this beacon from aircraft at any angle of approach. In the event these beacons cannot be installed in a manner to insure unobstructed visibility of the beacons from aircraft at any angle of approach, there shall be installed two such beacons, at each level. Each beacon shall be mounted on the outside of diagonally opposite corners or opposite sides of the tower at the prescribed height.

9 On levels at approximately two-thirds, four-ninths and two-ninths of the over-all height of the tower one similar flashing 300 m/m electric code beacon shall be installed in such position within the tower proper that the structural members will not impair the visibility of this beacon from aircraft at any angle of approach. In the event these beacons cannot be installed in a manner to insure unobstructed visibility of the beacons from aircraft at any angle of approach, there shall be installed two such beacons at each level. Each beacon shall be mounted on the outside of diagonally opposite corners or opposite sides of the tower at the prescribed height.

10 On levels at approximately four-fifths, three-fifths, two-fifths, and one-fifth of the over-all height of the tower one similar flashing 300 m/m electric code beacon shall be installed in such position within the tower proper that the structural members will not impair the visibility of this beacon from aircraft at any angle of approach. In the event these beacons cannot be installed in a manner to insure unobstructed visibility of the beacons from aircraft at any angle of approach, there shall be installed two such beacons at each level. Each beacon shall be mounted on the outside of diagonally opposite corners or opposite sides of the tower at the prescribed heights.

11 At the approximate mid point of the over-all height of the tower there shall be installed at least two 100-, 107-, 111- or 116-watt lamps (#100 A21/TS, #107 A21/TS, #111 A21/TS, or #116 A21/TS, respectively) enclosed in aviation red obstruction light globes. Each light shall be mounted so as to insure unobstructed visibility of at least one light at each level from aircraft at any angle of approach.

12 On levels at approximately two-thirds and one-third of the over-all height of the tower, there shall be installed at least two 100-, 107-, 111 or 116-watt lamps (#100 A21/TS, #107 A21/TS, #111 A21/TS or #116 A21/TS, respectively) enclosed in aviation red obstruction light globes. Each light shall be mounted so as to insure unobstructed visibility of at least one light at each level from aircraft at any angle of approach.

13 On levels at approximately three-fourths and one-fourth of the over-all height of the tower, at least one 100-, 107-, 111- or 116-watt lamp (#100 A21/TS, #107 A21/TS, #111 A21/TS or #116 A21/TS, respectively) enclosed in an aviation red obstruction light globe shall be installed on each outside corner of the tower at each level.

14 On levels at approximately four-fifths, three-fifths and one-fifth of the over-all height of the tower, at least one 100-, 107-, 111- or 116- watt lamp (#100 A21/TS, #107 A21/TS, #111 A21/TS or #116 A21/TS, respectively) enclosed in an aviation red obstruction light globe shall be installed on each outside corner of the tower at each level.

15 On levels at approximately five-sixths, one-half, and one-sixth of the over-all height of the tower, at least one 100-, 107-, 111- or 116-watt lamp (#100 A21/TS, #107 A21/TS, #111 A21/TS or #116 A21/TS, respectively) enclosed in an aviation red obstruction light globe shall be installed on each outside corner of the tower at each level.

16 On levels at approximately six-sevenths, five-sevenths, three-sevenths and one-seventh of the over-all height of the tower at least one 100-, 107-, 111- or 116-watt lamp (#100 A21/TS, #107 A21/TS, #111 A21/TS or #116 A21/TS, respectively) enclosed in an aviation red obstruction light globe shall be installed on each outside corner of the structure.

17 On levels at approximately seven-eighths, five-eighths, three-eighths, and one-eighth of the over-all height of the tower, at least one 100-, 107-, 111- or 116-watt lamp (#100 A21/TS, #107 A21/TS, #111 A21/TS or #116 A21/TS, respectively) enclosed in an aviation red obstruction light globe shall be installed on each outside corner of the structure.

18 On levels at approximately eight-ninths, seven-ninths, five-ninths, one-third and one-ninth of the over-all height of the tower, at least one 100-, 107-, 111- or 116-watt lamp (#100 A21/TS, #107 A21/TS, #111 A21/TS or #116 A21/TS, respectively) enclosed in an aviation red obstruction light globe shall be installed on each outside corner of the tower at each level.

19 On levels at approximately nine-tenths, seven-tenths, one-half, three-tenths, and one-tenth of the over-all height of the tower, at least one 100-, 107-, 111- or 116-watt lamp (#100 A21/TS, #107 A21/TS, #111 A21/TS or #116 A21/TS, respectively) enclosed in an aviation red obstruction light globe shall be installed on each outside corner of the tower at each level.

20 All lighting shall be exhibited from sunset to sunrise unless otherwise specified.

21 All lights shall burn continuously or shall be controlled by a light sensitive device adjusted so that the lights will be turned on at a north sky light intensity level of about 35 foot candles and turned off at a north sky light intensity level of about 58 foot candles.

22 During construction of an antenna structure, for which obstruction lighting is required, at least two 100-, 107-, 111- or 116-watt lamps (#100 A21/TS, #107 A21/TS, #111 A21/TS or #116 A21/TS, respectively) enclosed in aviation red obstruction light globes, shall be installed at the uppermost point of the structure. In addition, as the height of the structure exceeds each level at which permanent obstruction lights will be required, two similar lights shall be installed at each such level. These temporary warning lights shall be displayed nightly from sunset to sunrise until the the permanent obstruction lights have been installed and placed in operation, and shall be positioned so as to insure unobstructed visibility of at least one of the lights at any angle of approach. In lieu of the above temporary warning lights, the permanent obstruction lighting fixtures may be installed and operated at each required level as each such level is exceeded in height during construction.