



United States of America
FEDERAL COMMUNICATIONS COMMISSION
AM BROADCAST STATION LICENSE

Authorizing Official:

Official Mailing Address:

 FAMILY STATIONS, INC.
 112 NORTH ELM STREET
 SHENANDOAH IA 51601



 Son Nguyen
 Supervisory Engineer
 Audio Division
 Media Bureau

Facility Id: 43864

Call Sign: WFSI

License File Number: BZ-20220317AAA

Grant Date: May 31, 2022

This license expires 3:00 a.m.
 local time, October 01, 2027.

This authorization corrects the nighttime directional antenna parameters to match the daytime directional antenna parameters.

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: Daytime with Secondary nighttime

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

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

Name of Licensee: FAMILY STATIONS, INC.

Station Location: BALTIMORE, MD

Frequency (kHz): 860

Station Class: D

Antenna Coordinates:

Day

Latitude: N 39 Deg 18 Min 43 Sec

Longitude: W 76 Deg 29 Min 26 Sec

Night

Latitude: N 39 Deg 18 Min 43 Sec

Longitude: W 76 Deg 29 Min 26 Sec

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

Nominal Power (kW): Day: 2.5 Night: 0.0657

Antenna Input Power (kW): Day: 2.7 Night: 0.066

Antenna Mode: Day: DA Night: DA

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

Current (amperes): Day: 7.35 Night: 1.15

Resistance (ohms): Day: 50 Night: 50

Antenna Registration Number(s):

Day:

| Tower No. | ASRN | Overall Height (m) |
|-----------|---------|--------------------|
| 1 | 1029960 | |
| 2 | 1029961 | |
| 3 | 1029962 | |

Night:

| Tower No. | ASRN | Overall Height (m) |
|-----------|---------|--------------------|
| 1 | 1029960 | |
| 2 | 1029961 | |
| 3 | 1029962 | |

DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM

Theoretical RMS (mV/m/km): Day: 463.11 Night: 75.08

Standard RMS (mV/m/km):

Augmented RMS (mV/m/km): Day: 487.27 Night: 78.99

Q Factor: Day: 20.72 Night: 3.36

Theoretical Parameters:

Day Directional Antenna:

| Tower No. | Field Ratio | Phasing (Deg.) | Spacing (Deg.) | Orientation (Deg.) | Tower Ref Switch * | Height (Deg.) |
|-----------|-------------|----------------|----------------|--------------------|--------------------|---------------|
| 1 | 0.5640 | 142.100 | 74.0000 | 39.770 | 0 | 75.5 |
| 2 | 1.0000 | 0.000 | 0.0000 | 0.000 | 0 | 75.5 |
| 3 | 0.5640 | -142.100 | 74.0000 | 220.260 | 0 | 75.5 |

* 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 | 2.0 | 44.0 | 63.37 |
| 2 | 55.0 | 10.0 | 52.00 |
| 3 | 60.0 | 10.0 | 50.00 |
| 4 | 65.0 | 10.0 | 35.00 |
| 5 | 78.0 | 44.0 | 65.98 |
| 6 | 122.0 | 15.0 | 32.00 |
| 7 | 315.0 | 20.0 | 72.00 |
| 8 | 340.0 | 44.0 | 96.56 |

Theoretical Parameters:

Night Directional Antenna:

| Tower No. | Field Ratio | Phasing (Deg.) | Spacing (Deg.) | Orientation (Deg.) | Tower Ref Switch * | Height (Deg.) |
|-----------|-------------|----------------|----------------|--------------------|--------------------|---------------|
| 1 | 0.5640 | 142.100 | 74.0000 | 39.770 | 0 | 75.5 |
| 2 | 1.0000 | 0.000 | 0.0000 | 0.000 | 0 | 75.5 |
| 3 | 0.5640 | -142.100 | 74.0000 | 220.260 | 0 | 75.5 |

* 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 | 2.0 | 44.0 | 10.27 |
| 2 | 55.0 | 10.0 | 8.43 |
| 3 | 60.0 | 10.0 | 8.11 |
| 4 | 65.0 | 10.0 | 5.67 |
| 5 | 78.0 | 44.0 | 10.70 |
| 6 | 122.0 | 15.0 | 5.19 |
| 7 | 315.0 | 20.0 | 11.67 |
| 8 | 340.0 | 44.0 | 15.65 |

Day Directional Operation:

| Twr. No. | Phase (Deg.) | Antenna Monitor Sample Current Ratio |
|----------|--------------|--------------------------------------|
| 1 | 141.6 | 0.6 |
| 2 | 0 | 1 |
| 3 | -143.1 | 0.53 |

Night Directional Operation:

| Twr. No. | Phase (Deg.) | Antenna Monitor Sample Current Ratio |
|----------|--------------|--------------------------------------|
| 1 | 141.6 | 0.6 |
| 2 | 0 | 1 |
| 3 | -143.1 | 0.53 |

Antenna Monitor: POTOMAC INSTRUMENTS 1901-3

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) |
|-----------------|--------------------------------|-------------------------------|
| 17 | 3.02 | 14.8 |
| 40 | 3.02 | 23.1 |
| 122 | 2.86 | 6.1 |
| 340 | 2.36 | 39.3 |

Night Operation:

| Radial (Deg. T) | Distance From Transmitter (kM) | Maximum Field Strength (mV/m) |
|-----------------|--------------------------------|-------------------------------|
| 17 | 3.02 | 2.4 |
| 40 | 3.02 | 3.74 |
| 122 | 2.86 | 5.94 |
| 340 | 2.36 | 6.37 |

Special operating conditions or restrictions:

- 1 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.

- 2 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.

- 3 All three towers of the WFSI antenna system are uniform cross section steel towers, with a height above the base insulator of 73.1 meters, an overall height about ground without obstruction lighting of 74.6 meters, and an overall height with obstruction lighting of 75.2 meters. Station WBMD, owned by Relevant Radio, Inc., is diplexed onto Tower 3 of the WFSI array.

- 4 Ground system consists of 120, 49 m to 76 m equally spaced, buried, copper radials plus a 7.3 m x 7.3 m copper ground screen about the base of each tower. Radials are shortened and bonded to transverse copper strap midway between towers.

Special operating conditions or restrictions:

5 MONITOR POINT DESCRIPTIONS

17° - From intersection of Rossville Blvd and Yellowbrick Road, go east on Yellowbrick for 100 feet, then turn south into ToyRUs parking lot to southeast corner which is adjacent to US#40, point located 100 feet from southeast entrance into parking lot off US#40, along edge of lot, 3.02 km from site, max 14.8 mV/m daytime, max 2.4 mV/m Nighttime.

40° - point located on northeast corner of intersection of High Villa Road and Tulip Tree Court on the sidewalk, 3.02 km from site, max 23.1 mV/m daytime, max 3.74 mV/m nighttime.

122° - From the intersection of Bluebird Road and Creek Road, proceed east for 50 feet, point located in open lot 100 feet west of Creek Road, 2.86 km from site, max 6.1 mV/m daytime, max 5.94 mV/m nighttime.

340° - From the intersection of Philadelphia Road and Kenwood Avenue, proceed north onto Kenwood Avenue for 0.16 km to rear of the Rose Market Store, point located on steps leading to schoolyard at rear of Rose Market Store, 2.36 km from site, max 39.3 mV/m daytime, max 6.37 mV/m nighttime.

*** END OF AUTHORIZATION ***