

# **United States of America**

# FEDERAL COMMUNICATIONS COMMISSION AM BROADCAST STATION CONSTRUCTION PERMIT

Authorizing Official:

Official Mailing Address:

FAMILY STATIONS, INC.

112 NORTH ELM STREET

SHENANDOAH IA 51601

Facility Id: 25095

Call Sign: WKDN

Permit File Number: BP-20050216ACF

Daytime Construction Permit

Son Nguyen
Supervisory Engineer
Audio Division
Media Bureau

Grant Date: May 11, 2005

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

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.	7:30 AM	5:00	PM	Jul.	4:45 A	AM 7:3	0 PM
Feb.	7:00 AM	5:30	PM	Aug.	5:15 A	AM 7:0	0 PM
Mar.	6:15 AM	6:15	PM	Sep.	5:45 A	AM 6:1	5 PM
Apr.	5:30 AM	6:45	PM	Oct.	6:15 A	AM 5:3	0 PM
May	4:45 AM	7:15	PM	Nov.	6:45 A	AM 4:4	5 PM
Jun.	4:30 AM	7:30	PM	Dec.	7:15 4	AM 4:3	0 PM

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Name of Permittee: FAMILY STATIONS, INC.

Station Location: PHILADELPHIA, PA

Frequency (kHz): 950

Station Class: B

# Antenna Coordinates:

Day

Latitude: N 40 Deg 09 Min 11 Sec Longitude: W 75 Deg 25 Min 53 Sec

Night

Latitude: N 39 Deg 58 Min 28 Sec Longitude: W 75 Deg 16 Min 19 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: 5.0

Antenna Mode: Day: DA Night: DA

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

# Antenna Registration Number(s):

#### Day:

Tower No.	ASRN	
1	None	186
2	None	186
3	None	186
4	None	186
5	None	186
6	None	186

# Night:

Tower No. ASRN Overall Height (m)

1 1026798

2 1026797

3 1026796

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#### DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM

Theoretical RMS (mV/m/km): Day: 2911.63 Night: 704.89

Standard RMS (mV/m/km): Day: 3058.3

Augmented RMS (mV/m/km): Night:740.72

Q Factor: Day: Night:

#### Theoretical Parameters:

Day Directional Antenna:

Tower	Field Ratio	Phasing (Deg.)	Spacing (Deg.)	Orientation (Deg.)	Tower Ref Switch *	Height (Deg.)
1	1.0000	0.000	0.0000	0.000	0	210.0
2	1.1770	87.200	110.0000	308.000	0	210.0
3	0.3740	176.000	220.0000	308.000	0	210.0
4	1.3260	358.000	180.0000	210.000	0	210.0
5	1.5600	85.200	197.5000	243.500	0	210.0
6	0.4950	174.000	264.2000	265.600	0	210.0

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

#### Theoretical Parameters:

Night Directional Antenna:

Tower	Field	Phasing	Spacing	Orientation	Tower Ref	Height
No.	Ratio	(Deg.)	(Deg.)	(Deg.)	Switch *	(Deg.)
1	1.0000	87.000	0.0000	0.000	0	82.0
2	2.0000	0.000	93.0000	114.000	1	82.0
3	1.0000	-87.000	93.0000	114.000	1	82.0

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

# Augmentation Parameters:

Aug No.	Central Azimuth (Deg. T)	Span (Deg.)	Radiation at Central Azimuth (mV/m @ 1 km)
1	228.5	10.0	241.27
2	265.0	16.0	64.37
3	273.0	16.0	57.94
4	288.0	12.0	45.06
5	294.0	12.0	44.42
6	294.0	10.0	48.28
7	315.0	10.0	48.28
8	320.0	10.0	48.28

<sup>0 =</sup> Spacing and orientation from reference tower

<sup>1 =</sup> Spacing and orientation from previous tower

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Callsign: WKDN Permit No.: BP-20050216ACF

#### Augmentation Parameters:

Aug No.	Central Azimuth (Deg. T)	Span (Deg.)	Radiation at Central Azimuth (mV/m @ 1 km)
9	339.0	26.0	77.89

#### 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:	
3.5	207.5	mV/m
259	381	mV/m
Night:		
Azimuth:	Radiation:	
228.5	241.3	mV/m
294	48.3	mV/m

#### Special operating conditions or restrictions:

- 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.
- A complete nondirectional proof of performance, in addition to a complete proof on the day directional antenna system, shall be submitted before program tests are authorized. The nondirectional and directional field strength measurements must be made under similar environmental conditions.
- 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.
- 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.

Callsign: WKDN

Special operating conditions or restrictions:

Day: 120 equally spaced, buried, copper radials about the base of each tower, each 78.9 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 15.2 meters square, about the base of each tower.

- Night: 120 equally spaced, buried, copper radials about the base of each tower, each 20.4 meters to 91.4 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 copper ground screen 14.6 meters square, about the base of each tower.
- The facility described herein will not be licensed absent the issuance of an Antenna Structure Registration authorization. The permittee must include an Antenna Structure Registration Authorization along with the filing of FCC Form 302-AM, Application for License.
- Painting and lighting of the proposed antenna towers in accordance with paragraphs 4, 9, & 13 of FCC Form 715.

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