



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

Authorizing Official:

Official Mailing Address:

NRG LICENSE SUB, LLC  
2875 MT. VERNON ROAD SE  
CEDAR RAPIDS IA 52403

Son Nguyen  
Supervisory Engineer  
Audio Division  
Media Bureau

Grant Date: October 08, 2003

Facility Id: 35950

Call Sign: KXEL

Permit File Number: BP-20030714AFT

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

This authorization re-issued August 26, 2004, to reflect correction of  
directional antenna parameters.

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 AM	7:45 PM
Feb.	7:00 AM	5:45 PM	Aug.	5:15 AM	7:15 PM
Mar.	6:30 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	4:45 AM	7:30 PM	Nov.	7:00 AM	4:45 PM
Jun.	4:30 AM	7:45 PM	Dec.	7:30 AM	4:45 PM

Callsign: KXEL

Permit No.: BP-20030714AFT

Name of Permittee: NRG LICENSE SUB, LLC

Station Location: WATERLOO, IA

Frequency (kHz): 1540

Station Class: A

Antenna Coordinates:

Day

Latitude: N 42 Deg 10 Min 47 Sec

Longitude: W 92 Deg 18 Min 38 Sec

Night

Latitude: N 42 Deg 10 Min 48 Sec

Longitude: W 92 Deg 18 Min 38 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	1045075	

Night:

Tower No.	ASRN	Overall Height (m)
1	1045075	
2	1045074	

DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM

Theoretical RMS (mV/m/km): Night: 2735.88  
 Standard RMS (mV/m/km):  
 Augmented RMS (mV/m/km): Night: 3060.44  
 Q Factor: Night:

Theoretical Parameters:

Night Directional Antenna:

Tower No.	Field Ratio	Phasing (Deg.)	Spacing (Deg.)	Orientation (Deg.)	Tower Ref Switch *	Height (Deg.)
1	1.1000	76.000	0.0000	0.000	0	TL/S
2	1.0000	0.000	125.0000	5.500	0	TL/S

\* 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	B	C	D
1	155.0	35.00	.00	.00
2	155.0	35.00	.00	.00

Augmentation Parameters:

Aug No.	Central Azimuth (Deg. T)	Span (Deg.)	Radiation at Central Azimuth (mV/m @ 1 km)
1	0.0	84.0	4023.36
2	90.0	65.0	3419.86
3	122.5	23.0	1931.21
4	134.0	18.0	981.70
5	143.0	18.0	514.99
6	192.0	34.0	885.14
7	212.0	18.0	370.15
8	245.0	48.0	1577.16
9	270.0	50.0	3540.56
10	318.0	84.0	4377.42

Non-Directional Antenna: Day

Radiator Height: 83.9 meters;

Top-Loaded/Sectionalized Tower Parameters: (See 47 CFR 73

Tower No.	A	B
1	155.0	35.00

Theoretical Efficiency: 354.06 mV/m/kw at 1km

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 Ground System:

Ground system consists of 120 buried radials 106.7 meters long and 240 buried radials 7.7 meters long about each tower.

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