

SACFD 6/153
WRWA

Name of Applicant

SOUTH ROWAN BROADCASTING CO. INC.

PURPOSE OF AUTHORIZATION APPLIED FOR: (check one)

Station License

Answer Items
1-9

Direct measurement of power

1, 2, 6, 7, 8 and 10

1. Facilities authorized in construction permit

Call Sign	File No. of Construction Permit	Frequency	Hours of operation	Power in kilowatts	
				Night	Day
WRNA	BP850509AA	1140	DAYTIME		1

2. Station location

State NORTH CAROLINA	City or town CHINA GROVE
-------------------------	-----------------------------

3. Transmitter location

State NORTH CAROLINA	County ROWAN	City or town CHINA GROVE	State address (or other identification) On Patterson Road west of China Grove
-------------------------	-----------------	-----------------------------	--

Main Studio location

State NORTH CAROLINA	County ROWAN	City or town CHINA GROVE	Number and Street On Patterson Road west of China Grove
-------------------------	-----------------	-----------------------------	---

5. Remote control point location (only if authorized)

State NORTH CAROLINA	City or town CHINA GROVE	Street address (or other identification) On Patterson Road west of China Grove
-------------------------	-----------------------------	---

6. Operating constants:

RF common point or antenna current without modulation for night power in amperes <i>2.32 CH 2.11 CH ND</i>	RF common point or antenna current without modulation for day power in amperes 4.64
Actual measured antenna or common point <i>resistance</i> (in ohms) at operating frequency Night <i>CH 34</i> 50 Day 50	Actual measured antenna or common point <i>reactance</i> (in ohms) at operating frequency Night Day 0

Antenna monitor indication for directional operation

Tower	Phase reading in degrees		Antenna base current		Antenna monitor sample current ratio	
	Night	Day	Night	Day	Night	Day
1 west		0		5.4		1.0
2 east		163		3.1		.60

Manufacturer and type of antenna monitor:

POTOMAC INSTRUMENTS AM_-19

(204)

7. Description of antenna system

(If directional antenna is used, the information requested below should be given for each element of the array. Use separate sheets if necessary. Height figures should not include obstruction lighting.)

Type radiator GUYED, UNIFORM CROSS SECTION BASE INSULATED STEEL TOWERS	Height in feet of complete radiator above base insulator, or above base if grounded. #1 215.7' #2 143.8'	Overall height in feet above ground (without obstruction lighting) #1 219' #2 147'	If antenna is either top loaded or sectionalized, describe fully in Exhibit No. ____
---	---	---	--

Excitation

Series

Shunt

File NO.: BL-861002AG

Call Sign: WRNA

PacIP 61153
Date: 10/6/86**1. DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM**

DA- D

No. and Type of Elements: Two(2), uniform cross-section, guyed, steel, vertical radiators.
Theoretical RMS = 322.24 mV/m/km. Standard RMS = 338.528 mV/m/km.

Height above Insulators: #1 215.7' (90°), #2 143.8' (60°)

Overall Height: #1 219', #2: 147'

Spacing and Orientation: Using tower #1(West) as a reference, tower #2(East) is spaced 215.7' (90°) on a line bearing of 125° T.

Non-Directional Antenna: Theoretical RMS = 305.78 mV/m/km (critical hours)

Ground System consists of 120-215' equally spaced buried radials about the base of each tower and extending to the property or to intersection with transverse copper strap. In addition 120-50' copper radials are interspersed with the longer radials.

2. THEORETICAL SPECIFICATIONS

Phasing:	Tower	#1(W)	#2(E)
	Day	0°	164°

Field Ratio:	Day	1.00	0.60
---------------------	-----	------	------

3. OPERATING SPECIFICATIONS

Phase Indication*:			
	Day	0°	163°

Antenna Base			
Current Ratio:			
	Day	1.00	0.574

Antenna Monitor Sample			
Current Ratio:			
	/Day	1.00	0.60

* As indicated by Potomac Instruments AM-19(204) Antenna Monitor.

ANTENNA SAMPLING SYSTEM APPROVED UNDER SECTION 73.68(b) OF THE RULES

WRNA

BL-850509AA

DESCRIPTION OF AND STRENGTH OF MONITORING POINTS

Direction of 45 degrees true north. From the transmitter, turn right onto Patterson Road and proceed .45 miles to the intersection of Highway 29A (Main St.). Turn left and proceed 2.35 miles to the intersection of Highway 1505. Turn left and proceed .65 miles to a small farm road that veers to the right. The monitoring point is on the opposite side of Highway 1505 east side of a mail box. The point is marked with a red painted stake. This point is 2.4 miles from the array. The field intensity measured at this point should not exceed 18.2 mv/m.

Direction of 125 degrees true. From the transmitter, turn right onto Patterson Road and proceed .45 miles to the intersection of Highway 29A(Main St.). Turn right and proceed .45 miles to Lentz Road and turn right. Proceed 1.56 miles to the intersection of Deal Road and turn right. The monitoring point is located .25 miles south of Lentz Road on the east side of Deal Road. The point is marked with a red painted stake. The point is 2.15 miles from the antenna array. The field intensity measured at this point should not exceed 83 mv/m.