

**ANTENNA LOCATION
MINOR AMENDMENT
ENGINEERING EXHIBIT
MINOR CHANGE APPLICATION
BPH-20120807ACK
WQNS, FACILITY ID No: 41008**

This exhibit is part of an application for reallocation of WQNS. This exhibit applies to the antenna location only and is part of a minor amendment to BPH-20120807ACK to lower power from 5,300 watts to 4,900 watts, this 400 watt reduction of power being the only change in the application.

Narrative

It is proposed that the WQNS antenna be located 94 meters above ground on a tower identified by Antenna Structure Registration Number 1007876. From this location the station will be non-directional with 4.9 kW of radiated power and spaced via Section 73.215 to other facilities, applications, and allotments.

The proposed tower is an element in standard band co-owned station WWNC; appropriate measures will be taken to ensure continued proper operation of the WWNC array.

Attached as Figure 1 is a spacing study from which it can be seen that the proposed location is not eligible for Section 73.207 spacing because of the distance to the co-channel permit of WNGA as well as second-adjacent WNOW-FM; thus spacing in accordance with Section 73.215 is requested.

To prevent prohibited contour overlap this proposal requests that power be limited to 4.9 kW from a non-directional antenna. Figure 2 is a table and map of the protected and interfering contours of interest for this proposal and the permit of WNOW-FM demonstrating no prohibited contour overlap. Figure 3 is a map of the protected and interfering contours of this proposal and WNGA demonstrating no prohibited contour overlap.

RF Exposure

The proposed facilities were evaluated in terms of potential radio frequency radiation exposure at ground level in accordance with OET Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation."

The proposed antenna system is a Dielectric DCRM 4- element full-wave spaced antenna mounted 94 meters above ground. For purposes of this analysis the FM Model program has been set to calculate values for this type of antenna element array, operated with an effective radiated power of 4.9

Kilowatts in both the horizontal and vertical planes. At 2 meters above the surface, at 40 meters from the base of the tower, this proposal will contribute worst case, 4.3 microwatts per square centimeter, or 0.43 percent of the allowable ANSI limit for controlled exposure, and 2.15 percent of the allowable limit for uncontrolled exposure. This figure is less than 5% of the applicable FCC exposure limit at all locations extending out from the base of the tower. Section 1.1307(b)(3) excludes applications when the calculated level is predicted to be less than 5% of the applicable exposure limit. It is therefore believed that this proposal is in compliance with OET Bulletin Number 65 as required by the Federal Communications Commission.

Further, the applicant will see that signs are posted in the vicinity of the tower warning of potential radio frequency hazards at the site. The site itself is restricted from public access. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the tower for maintenance or inspection.

Respectfully submitted,



Troy G. Langham

FCC Engineering Supervisor

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Figure 1 – Spacing Study

WQNS Ant Location at 5.2 kw
Clear Channel Broadcasting Licenses, Inc.

REFERENCE		CLASS = A		DISPLAY DATES	
35 35 50.4 N.				DATA	09-26-12
82 36 20.5 W.		Current Spacings to 3rd Adj.		SEARCH	09-26-12
----- Channel 286 - 105.1 MHz -----					

Call	Channel	Location		Azi	Dist	FCC	Margin
WQNS	APP-N 286A	Woodfin	NC	0.0	0.00	115.0	-115.0
One Step Application							
WQNS	RSV-A 286A	Woodfin	NC	347.8	12.72	115.0	-102.3
One Step Application							
WQNS	LIC 285A	Waynesville	NC	263.4	27.53	72.0	-44.5
WNGA	CP 286C3	Clermont	GA	227.6	139.03	142.0	-3.0
One Step Application							
WNOV-FM	LIC 287C1	Gaffney	SC	101.0	131.32	133.0	-1.7
WROO	APP 285A	Mauldin	SC	166.1	77.29	72.0	5.3
One Step Application							
WNGA	LIC 286A	Helen	GA	227.6	139.03	115.0	24.0
WROO	RSV-A 285A	Mauldin	SC	163.1	106.68	72.0	34.7
One Step Application							
WCCP-FM	LIC 285A	Clemson	SC	185.0	106.95	72.0	35.0
R15125	DEL 285A	Clemson	SC	185.0	106.95	72.0	35.0
involuntary channel substitution per BPH-20120807ACG- to channel 288							
WKOS	LIC-D 285A	Kingsport	TN	7.4	107.06	72.0	35.1
WTUK	LIC-N 286A	Harlan	KY	337.0	157.70	115.0	42.7
WMUU-FM	LIC 233C	Greenville	SC	166.3	74.88	29.0	45.9
WHLC	LIC 283A	Highlands	NC	221.5	79.44	31.0	48.4
WLNQ	LIC-N 284A	White Pine	TN	322.6	86.84	31.0	55.8
WSEV-FM	LIC 288A	Gatlinburg	TN	278.0	87.74	31.0	56.7

RSV-R = reserved - needs protection, RSV-A = allocation

Figure 2 – Contour Map WNOW-FM

09-27-2012

Terrain Data: NGDC 30 SEC

FMOver Analysis

WQNS.A

WNOW-FM BLH20100429ADK
(^ Max Class Parameters)

Channel = 286A

Channel = 287C1

Max ERP = 4.9 kW

Max ERP = 100 kW

RCAMSL = 766 M

RCAMSL = 548 M

N. Lat. 35 35 50.4

N. Lat. 35 21 51.0

W. Lng. 82 36 20.5

W. Lng. 81 11 13.0

Protected

Interfering

60 dBu

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
090.0	004.9000	0091.1	025.9	284.5	100.0000	0292.4	106.1	53.48	
091.0	004.9000	0095.7	026.5	284.3	100.0000	0292.2	105.4	53.68	
092.0	004.9000	0100.4	027.1	284.2	100.0000	0292.0	104.7	53.88	
093.0	004.9000	0102.2	027.3	283.9	100.0000	0291.6	104.4	53.96	
094.0	004.9000	0101.3	027.2	283.7	100.0000	0291.2	104.4	53.94	
095.0	004.9000	0099.7	027.0	283.4	100.0000	0290.7	104.6	53.89	
096.0	004.9000	0097.5	026.7	283.1	100.0000	0290.2	104.8	53.80	
097.0	004.9000	0091.7	026.0	282.8	100.0000	0289.6	105.5	53.58	
098.0	004.9000	0084.0	024.9	282.5	100.0000	0289.1	106.5	53.26	
099.0	004.9000	0076.2	023.8	282.3	100.0000	0288.6	107.6	52.93	
100.0	004.9000	0068.7	022.7	282.0	100.0000	0288.2	108.7	52.62	

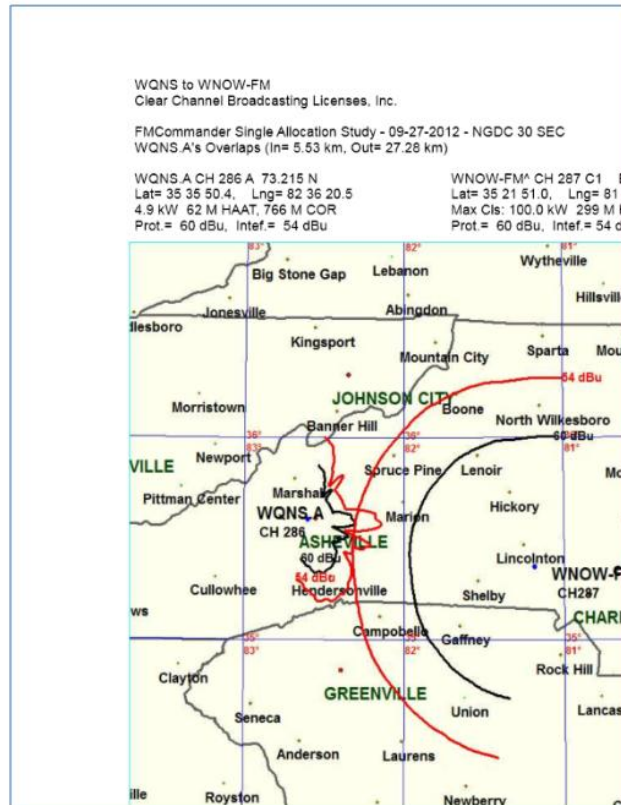


Figure 3– Contour Map WNGA Permit

WQNS to WNGA
Clear Channel Broadcasting Licenses, Inc.

FMCommander Single Allocation Study - 09-27-2012 - NGDC 30 SEC
WQNS.A's Overlaps (In= 70.42 km, Out= 45.62 km)

WQNS.A CH 286 A 73.215 N
Lat= 35 35 50.4, Lng= 82 36 20.5
4.9 kW 62 M HAAT, 766 M COR
Prot.= 60 dBu, Intef.= 40 dBu

WNGA CH 286 A BLH20050323ACD
Lat= 34 44 55.0, Lng= 83 43 43.0
1.7 kW 187 M HAAT, 857 M COR
Prot.= 60 dBu, Intef.= 40 dBu

