

Cokesbury, South Carolina  
Application for New Noncommercial FM Station  
On Channel 220 Class C3  
by  
Spirit Broadcasting Group, Inc.

Exhibit 18  
Protection under §73.215

October 2007

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Declaration

I declare, under penalty of perjury, that I am a technical consultant to broadcasting and other communications systems, that I have over twenty-five years of experience in the engineering of broadcast and other communications systems, that I am familiar with the Federal Communications Commission's Rules found in the Code of Federal Regulations Title 47, that I am a Professional Engineer registered in North Carolina, that I have prepared or supervised the preparation of the attached Exhibit 18 Protection under §73.215 for Spirit Broadcasting Group, Inc., and that all of the facts therein, except for facts of which the Federal Communications Commission may take official notice, are true to the best of my knowledge and belief.



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7 October 2007

### Narrative

This Exhibit provides details of Protection under §73.215 for the proposed new station to serve Cokesbury, South Carolina. The facility is proposed on channel 220 which requires protection of adjacent channel commercial stations. Table 1 provides all commercial channel adjacencies where the margin compared to the spacings in §73.207 are no more than 75 kilometers. Rounding of 0.5 kilometers is shown.

### Protection by Distance

The Cokesbury facilities are class C3. The following table provides the minimum separation distances for Class C3 in §73.215(e).

Relation	Separation Distances in kilometers (miles)		
	Co-Channel	200 kHz	400/600 kHz
A to C3	119 (74)	72 (45)	36 (22)
B1 to C3	143 (89)	96 (60)	44 (27)
B to C3	178 (111)	114 (70)	65 (40)
C3 to C3	142 (88)	89 (55)	37 (23)
C3 to C2	166 (103)	106 (66)	50 (31)
C3 to C1	200 (124)	133 (83)	70 (43)
C3to C0	215 (134)	152 (94)	81 (50)
C3 to C	226 (140)	165 (103)	90 (56)

There are two allocations where the spacing does not meet the table limit. For those two facilities, allocation studies are provided in this exhibit. Full protection is provided to the facilities that are short spaced under §73.215. For each study the allocation is studied as a class maximum facility with an omnidirectional antenna, rather than the actual facilities.

WSGC-FM is licensed at Elberton, Georgia, as a first adjacent Class A. Figure 1 is an allocation study showing that the proposed Cokesbury facility's 54 dBu F(50,10) contour fails to overlap the WSGC-FM protected 60 dBu contour.

WSGC-FM has a Construction Permit at Lavonia, Georgia, as a first adjacent Class A.

Figure 1 is an allocation study showing that the proposed Cokesbury facility's 54 dBu F(50,10) contour fails to overlap the WSGC-FM protected 60 dBu contour.

**Table 1: Nearest Allocations**

Timothy L. Warner, Inc.  
Asheville, North Carolina

Spirit Broadcasting Group, Inc.  
Allocation Study

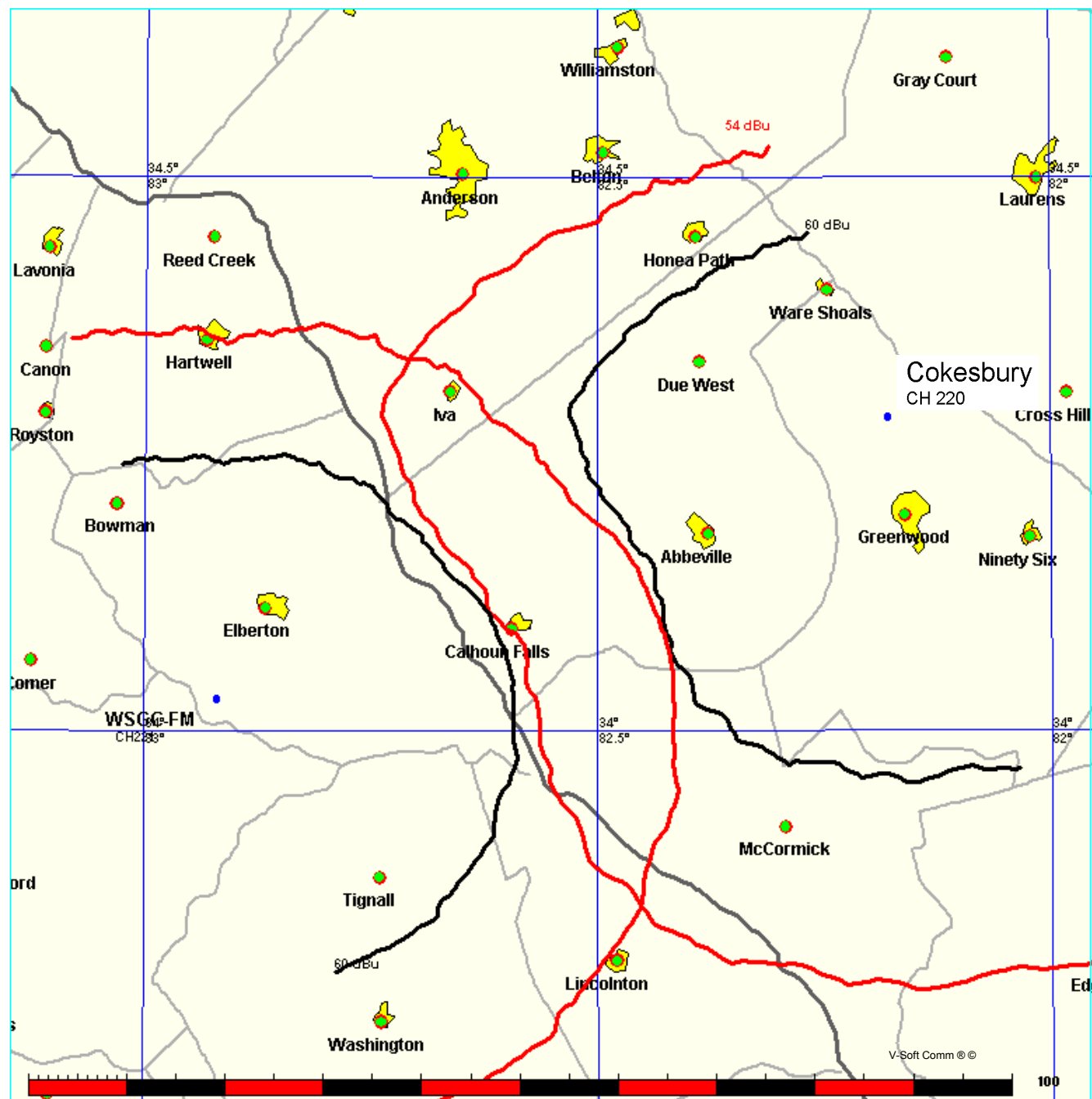
Allocation Study						DISPLAY DATES		
REFERENCE		CLASS = C3				DATA	10-06-07	
34 17 01.0 N.	Current Spacings				SEARCH	10-07-07		
82 10 49.0 W.	----- Channel 220 - 91.9 MHz -----							
Call	Channel	Location		Azi	Dist	FCC	Margin	
WSGC-FM	LIC	221A	Elberton	GA	247.7	73.91	88.5	-14.59
WSGC-FM	CP	221A	Lavonia	GA	277.4	87.55	88.5	-0.95
WWNU	LIC-Z	221C3	Irmo	SC	102.7	99.67	98.5	1.17
WESC-FM	LIC	223C	Greenville	SC	337.7	102.55	95.5	7.05
WAEG	LIC	222A	Evans	GA	183.5	77.04	41.5	35.54
WPEH-FM	LIC	221A	Louisville	GA	188.0	142.25	88.5	53.75

Spirit Broadcasting Group, Inc.  
Figure 1: 73.215 Allocation Study WSGC-FM

FMCommander Single Allocation Study  
10-07-2007

Cokesbury CH 220 C3  
25.0 kW 267 M COR DA  
Prot. = 60 dBu  
Intef. = 54 dBu

WSGC-FM CH 221 A BLH6027  
6.0 kW, 262 M COR  
Prot. = 60 dBu  
Intef. = 54 dBu



Spirit Broadcasting Group, Inc.  
Figure 2: 73.215 Allocation Study WSGC-FM (CP)

FMCommander Single Allocation Study  
10-07-2007

Cokesbury CH 220 C3	WSGC-FM.C CH 221 A	BMPH20070214ACI
25.0 kW 267 M COR DA	6.0 kW, 333.9 M COR	
Prot. = 60 dBu	Prot. = 60 dBu	
Intef. = 54 dBu	Intef. = 54 dBu	

