

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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Timothy L. Warner, Inc.  
Post Office Box 8045  
Asheville, North Carolina 28814-8045  
(828) 258-1238  
twarner@tlwinc.net

Table of Contents

Description	Page
Declaration.....	2
Narrative .....	3
Protection by Distance .....	3
Table 1: Nearest Allocations.....	4
Figure 1: Allocation Study WSGC-FM (Licensed Facilities) .....	1
Figure 2: Allocation Study WSGC-FM (Construction Permit) .....	2

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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Timothy L. Warner, P.E.  
Post Office Box 8045  
Asheville, North Carolina 28801  
(828) 258-1238  
[twarner@tlwinc.net](mailto:twarner@tlwinc.net)  
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

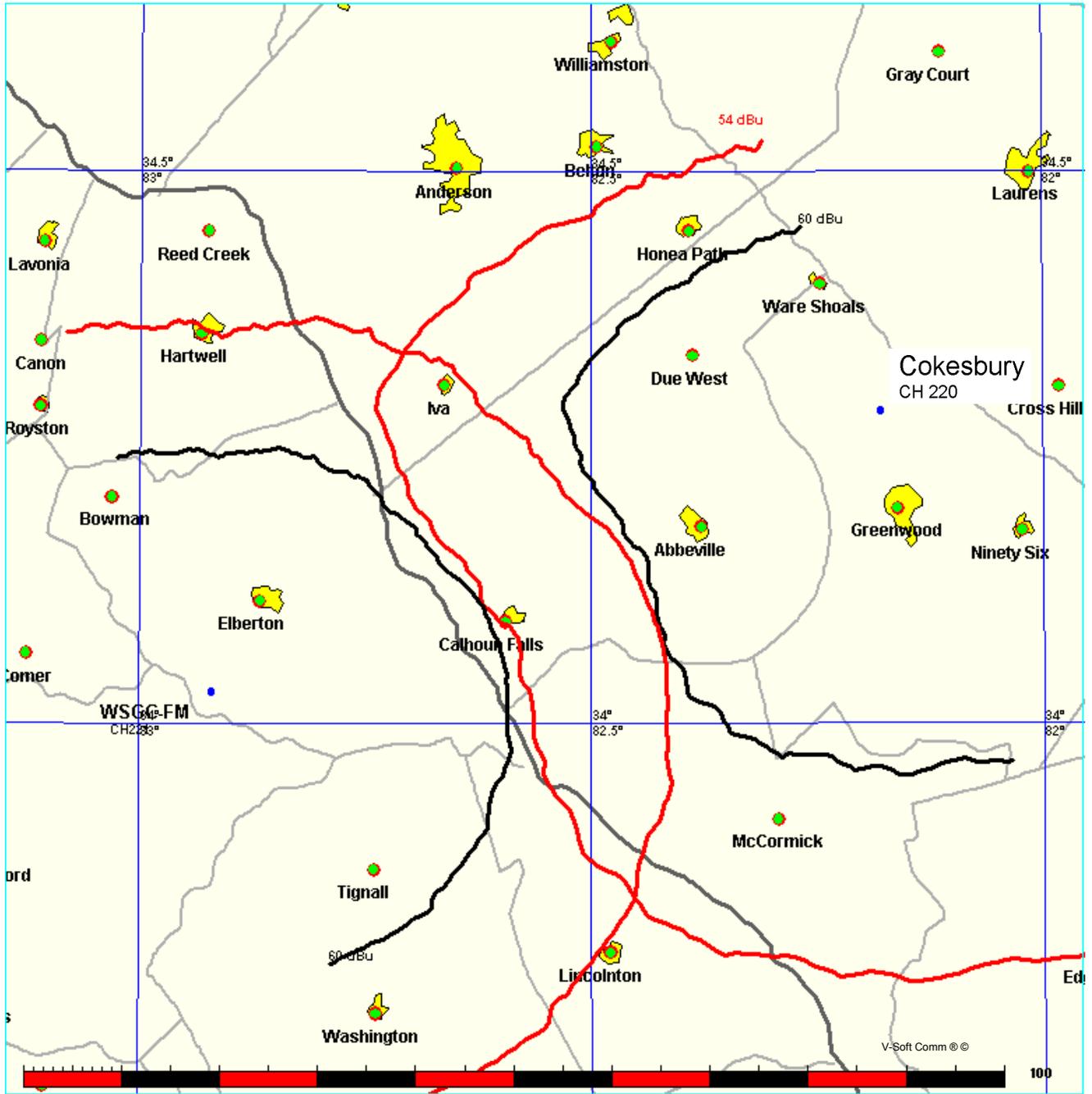
Spirit Broadcasting Group, Inc.  
Allocation Study

REFERENCE			CLASS = C3			DISPLAY DATES	
34 17 01.0 N.			Current	Spacings		DATA	10-06-07
82 10 49.0 W.			Channel 220 - 91.9 MHz			SEARCH	10-07-07
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	
WVNU	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	WSGC-FM CH 221 A	BLH6027
25.0 kW 267 M COR DA	6.0 kW, 262 M COR	
Prot. = 60 dBu	Prot. = 60 dBu	
Intef. = 54 dBu	Intef. = 54 dBu	



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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	

