

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

Exhibit 10  
First Service for Section 307(b) Preference

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 11, First Service for Section 307(b) Preference 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 the First Noncommercial Service on reserved channels for the proposed new station to serve Cokesbury, South Carolina. This proposal was studied under the procedures in the Public Notice<sup>1</sup> which provided additional details for the window during which this application is filed. All licensed facilities and all construction permits for new unbuilt but authorized facilities were considered.

### First Service Population

This proposal serves a first service area with a population of 67,293 persons. The first service population is 50.4% of the population within the proposed 60 dBu F(50,50) service contour. Because the population exceeds the threshold, this application could be considered under Priority 1, providing first receptive service preference. Figure 1 shows the area and data.

There is also second service population (see Exhibit 11) which should be considered in Section 307(b) analysis.

### Source of Data

Transmitter location, effective radiated power, directional antenna pattern, and elevation data are extracted from the Commission's CDBS. All contours for existing and proposed facilities are calculated using height above average terrain calculated at one degree horizontal increments. Terrain data is extracted from the V-Soft Communications NED 03 terrain database. The NED 03 database is derived from the USGS National Elevation Data 30 meter terrain database. The USGS National Elevation Dataset has been developed by merging the highest-resolution, best-quality elevation data available across the United States into a seamless raster

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<sup>1</sup> Media Bureau Announces NCE FM New Station and Major Change Filing Procedures For October 12 – October 18, 2007 Window; Limited Application Filing Freeze to Commence on September 8, 2007, DA 07-3521, released August 9, 2007.

format. NED is the result of the maturation of the USGS effort to provide 1:24,000-scale Digital Elevation Model (DEM) data for the conterminous US and 1:63,360-scale DEM data for Alaska.

All population data is from 2000 U.S. Census SF1 data files. Population is counted by considering the location of the centroid of each census bloc. The data for each block is counted if it falls within the area being counted.

**Population Database: 2000 US Census (SF1)**

	Service Pop	Running Total	%
1st Service	67,293	67,293	50.4
2nd Service	32,279	99,572	74.6
3rd Service (or >)	33,828	133,400	100.0

Timothy L. Warner, Inc.

**Cokesbury**

Latitude: 34-17-01 N  
Longitude: 082-10-49 W  
ERP: 25.00 kW  
Channel: 220  
Frequency: 91.9 MHz  
AMSL Height: 267.0 m  
Elevation: 193.06 m  
Horiz. Pattern: Directional

- Cokesbury
- WLFJ-FM
- WEPR
- WEPC

- First Service
- Second Service
- Third or more service

Cokesbury, South Carolina  
First and Second Service  
7 October 2007  
Figure 1

