

Claxton, Georgia
Application for New Noncommercial FM Station
On Channel 205 Class C2
by
Radio Training Network, Inc.

Exhibit 19
Television Channel 6 Protection Under 47 C.F.R. §73.525

July 2008

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

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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 19, Television Channel 6 Protection Under 47 C.F.R. §73.525 for Radio Training Network, 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.



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

This Exhibit provides details of the Television Channel 6 Protection under 47 C.F.R. §73.525 for the proposed new station to serve Claxton, Georgia. This exhibit accompanies an amendment to modify the horizontally polarized effective radiated power and replaces the original Television Channel 6 protection exhibit filed in October 2007.

Interference Calculations

There are two television channel six stations which are effected stations according to §73.525(a)(1): WJBF, Augusta, Georgia, and WCES DT, Wrens, Georgia. Protection is provided to both television stations under the contour methods in §73.525(e).

The Effective Radiated Power for the Claxton facility is adjusted for mixed polarization as follows:

$$\text{Power} = [\text{Horizontal ERP} + (\text{Vertical ERP}/A)] \quad \text{where in this case } A=40$$

because the entire predicted interference area lies outside any cities with populations of 50,000 persons or more¹.

For this facility, the proposed ERP is 45,000 Watts Vertical and 1,200 Watts Horizontal. Therefore $P = 2,325$ Watts.

Figure 1 shows the WJBF 47 dBu F(50,50) Grade B contour and the 68 dBu F(50,50) Grade A contour. Additional television coverage contours are plotted to show the area of intersections between the television F(50,50) service contours and the predicted F(50,10) interference contours for the proposed Claxton facilities. Figure 2 shows the area in greater detail. The television channel 6 contours and the corresponding FM interference contours are shown with a color key on Figures 1 and 2.

¹ §73.525(e)(4)(ii)

Figure 3 shows the WCES DT 47 dBu F(50,50) contours, as those contours are defined in §73.525, for the WCES DT Construction Permit, file number BPEDT-20080409AAA, and an application for modified facilities, file number BMPEDT-20080619AKQ. As Figure 3 shows, there is no overlap of the proposed Claxton interference contours with the WCES DT 47 dBu F(50,50) contours. The television channel 6 contours and the corresponding FM interference contours are shown with a color key on Figure 3.

Interference Population

The population in the area where WJBF is predicted to receive interference from the Claxton proposal is 3,966 persons. In compliance with §73.525(c)(2), RTI will install 966 filters on television sets within the predicted interference area within 90 days after the commencement of program test operations², and will, no later than 45 days thereafter, provide WJBF with a certification containing sufficient information to permit verification of the installation. This application is therefore in compliance with the limit of no more than 3,000 persons as listed in §73.525(c) with respect to WJBF.

There is no overlap area between the authorized or proposed WCES DT 47 dBu contours and the proposed Claxton interference. There is therefore no interference population. This application is therefore in compliance with the limit of no more than 3,000 persons as listed in §73.525(c) with respect to WCES DT.

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

² It is noted that the television channel 6 station is only subject to interference while it is operating on channel 6. Should program test operations commence after channel 6 ceases to operate in analog mode on channel 6 and instead broadcast digitally on a channel different from channel 6, then there is neither the need nor the possibility of effectively installing filters for protection, and such filters will not be installed.

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 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.





