

Engineering Exhibit  
WIBT Facility ID: 74194  
Channel 241, Shelby, NC  
November 2010

By this minor change application it is proposed to replace the directional antenna of WIBT and making changes in the directional pattern of the antenna. The replacement antenna will be located at the same location and height as the presently authorized facility.

From this location upon tower identified by ASR# 1006705, WIBT is fully spaced in accordance with Section 73.207 to all known facilities, allocations, and applications with the exception of WXRC Hickory, NC, WBBB Raleigh, NC, and WRZK Colonial Heights, TN. A complete spacing study can be found in Figure 1 below.

WXRC and WIBT are 2<sup>nd</sup> adjacent stations that have been short-spaced since November 16, 1964. In accordance with Section 73.213(a)(4) there are no distance or interference protection requirements.

WBBB and WIBT are co-channel stations that have been short-spaced since November 16, 1964. The public interest will be served by this proposed change. As demonstrated in Figure 2 below, no new co-channel interference will be created by this proposal. As demonstrated, the area, and thus population, currently receiving co-channel interference will not change. Because no “new” interference will be created by this proposal a copy has not been served upon the licensee of WBBB. Processing in accordance with Section 73.213 (a)(2) is requested.

WRZK and WIBT are 1<sup>st</sup> adjacent stations which spacing in accordance with Section 73.215 is requested. Figure 3 below demonstrates that no prohibited contour overlap is predicted to occur.

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 DCBR – 6DA, 6- bay, half wave spaced, “cavity back “ antenna, mounted with its center of radiation 522 meters above ground level, and will operate with a maximum effective radiated power of 100 Kilowatts in both the horizontal and vertical planes. For this evaluation “FM Model” was utilized with the antenna type of “Phelps-Dodge “Ring Stub”” selected because the proposed DCRB is not modeled in the program. This selection provides a “worst case” calculation.

At 2 meters above ground, at 327 meters from the base of the tower, this proposal will contribute worst case, 0.431 microwatts per square centimeter, or 0.04 percent of the

allowable ANSI limit for controlled exposure, and 0.20 percent of the allowable limit for uncontrolled exposure. It is therefore believed that this proposal is in compliance with OET Bulletin Number 65 as required by the Federal Communications Commission.

**Figure 1**

Figure 2

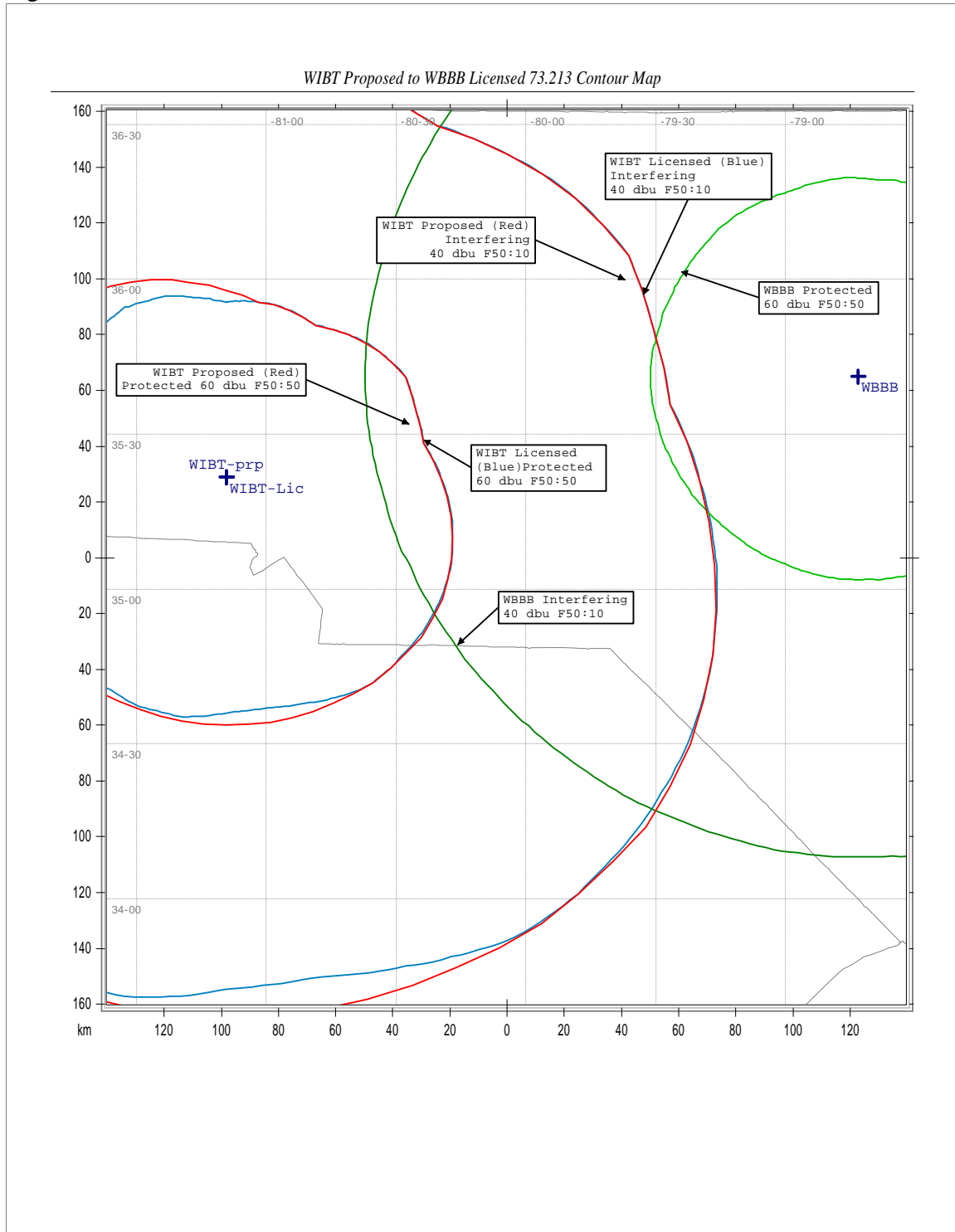


Figure 3.

