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CTJC
CARL T. JONES CORPORATION

ENGINEERING STATEMENT OF CYNTHIA M. JACOBSON, P.E.
IN SUPPORT OF AN APPLICATION FOR CONSTRUCTION PERMIT
FOR AN AUXILIARY ANTENNA
WGTK-FM – GREENVILLE, SOUTH CAROLINA
LICENSED MAIN: Ch. 233C – 100 kW ERP – 454 M HAAT
PROPOSED AUXILIARY: Ch.233 – 47 kW ERP – 433 M HAAT

Facility ID No: 73296

Licensee: Caron Broadcasting, Inc.

I am a Radio Engineer, an employee in the firm of Carl T. Jones Corporation, with offices located in Springfield, Virginia.

My education and experience are a matter of record with the Federal Communications Commission. I am a Registered Professional Engineer in the Commonwealth of Virginia, Registration No. 027914.

GENERAL

This office has been authorized by Caron Broadcasting, Inc., licensee of FM Broadcast Station WGTK-FM, Greenville, South Carolina, to prepare this narrative, FCC Form 301 Section III-B, and the associated figures in support of an Application for Construction Permit to develop an auxiliary transmission system for WGTK-FM. The

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auxiliary antenna will be employed when the main facility is off the air during emergencies or for equipment maintenance.

TECHNICAL FACILITIES

It is proposed to mount a nondirectional antenna for the auxiliary system below the authorized licensed antenna of WGTK-FM. This site is uniquely described by the NAD-27 coordinates of:

North Latitude: 34° 56' 29"
West Longitude: 82° 24' 41".

The proposed antenna system will be mounted on an existing support structure. The tower is a self-supporting structure located on Paris Mountain, Greenville, South Carolina. The antenna structure registration number is 1256830.

The applicant proposes to utilize a 4-bay, omnidirectional, circularly polarized antenna, ERI SHPX-4AC. The FM antenna will be side-mounted on the tower such that the radiation centerline is 115 meters above ground level (739 meters above mean sea level). The overall height of the existing tower is 149.9 meters above ground (773.8 meters above mean sea level).

The proposed effective radiated power will be 47.0 kW (H & V) while employing a nondirectional antenna pattern.

PREDICTED COVERAGE CONTOURS

The predicted coverage contours were calculated in accordance with the method described in Section 73.313 of the Rules, utilizing the appropriate F(50, 50) propagation curves from the Rules (Section 73.333, Figure 1), effective radiated power and antenna height above average terrain as determined for each profile radial. The average terrain on the eight cardinal radials from 3.2 kilometers to 16.1 kilometers from the proposed site was determined using the National Geophysical Data Center Thirty Second Point Topography Database (TPG-0050), as prescribed in Section 73.312(d) of the Rules. The antenna site elevation was determined from data on file with the FCC for WGTK-FM.

The predicted 1.0 mV/m coverage contours for the licensed main facility and the proposed auxiliary facility are shown in Figure 1. As shown, the proposed auxiliary 1.0 mV/m contour is predicted to be entirely within the licensed main 1.0 mV/m contour as required by 73.1675(a)(1)(ii) of the Rules. To insure compliance, the contours were calculated for every one degree of azimuth.

ENVIRONMENTAL CONSIDERATIONS

RADIO-FREQUENCY IMPACT

Effective October 15, 1997, the FCC adopted its current guidelines and procedures for evaluating environmental effects of radiofrequency emissions. The current guidelines are generally based on recommendations by the National Council on Radiation Protection and Measurements (NCRP) in NCRP Report No. 86 (1986), and by the American National

Standards Institute and the Institute of Electrical and Electronic Engineers, Inc. (IEEE) in ANSI/IEEE C95.1-1992 (IEEE C95.1-1991). The FCC guidelines provide a maximum permissible exposure (MPE) level for occupational or "controlled" situations, as well as "uncontrolled" situations that apply in cases that affect the general public. The FCC's Office of Engineering and Technology (OET) Division issued a technical bulletin (OET Bulletin No. 65) entitled, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields" (Edition 97-01, August 1997), to aid in the determination of whether FCC-regulated transmitting facilities, operations or devices comply with limits for human exposure to radiofrequency electromagnetic fields as adopted by the Commission in 1996. The Bulletin contains updated and additional technical information for evaluating compliance with the current FCC policies and guidlelines.

CO-LOCATED FACILITIES

In addition to the WGTK-FM facility, there are several other stations at the Paris Mountain location; i.e. within 300 meters. The analysis provided herein will demonstrate that the proposed auxiliary facility will contribute less to the existing RFR environment when compared against the licensed WGTK-FM main facility.

Radio station WGTK-FM proposes herein to install a four-bay, full wavelength spaced, ERI antenna for auxiliary use on an existing tower. The WGTK-FM auxiliary facility will operate, when necessary, with an ERP of 47 kW at an antenna radiation

centerline height of 115 meters above ground level ("RCAGL"). The licensed main facility of WGTK-FM uses an eight-bay, full wavelength spaced, ERI antenna on the same tower. The main facility is authorized for 100 kW ERP at an antenna radiation centerline height of 136 meters above ground level ("RCAGL"). Assuming a worst-case relative field factor of 1.0, the proposed auxiliary facility will contribute less than the licensed facility to the RFR environment. A comparison of both is listed below.

Facility Type	Relative Field Factor	Power Density mW/cm^2
Main	1.0	0.37213
Auxiliary	1.0	0.24595

In no instance will the main and auxiliary be in operation simultaneously. The above table shows that the auxiliary facility will contribute less than that currently authorized[1] for the licensed main facility. RFR measurements on file with the FCC demonstrate that the RF energy at the site with the licensed main facility are in compliance with RF specified exposure limits. Thus, the proposed auxiliary facility will also be in compliance.

[1] As previously approved in FCC File No. BRH-20110725ADL and RFR measurements submitted in FCC File No. BLH-20080425ABD.

OCCUPATIONAL SAFETY

The applicant will ensure the protection of station personnel or tower contractors working in the vicinity of the WGTK-FM auxiliary transmitting antenna. The applicant will reduce power and/or cease operation during times of service or maintenance of the transmission systems as necessary to avoid potentially harmful exposure to personnel. In addition, the applicant will become party to any agreement among the site users to further ensure the safety of workers and the general public.

In light of the above, the proposed facility should be categorically excluded from RF environmental processing under Section 1.1307(b) of the Commission's Rules.

DATED: May 19, 2014

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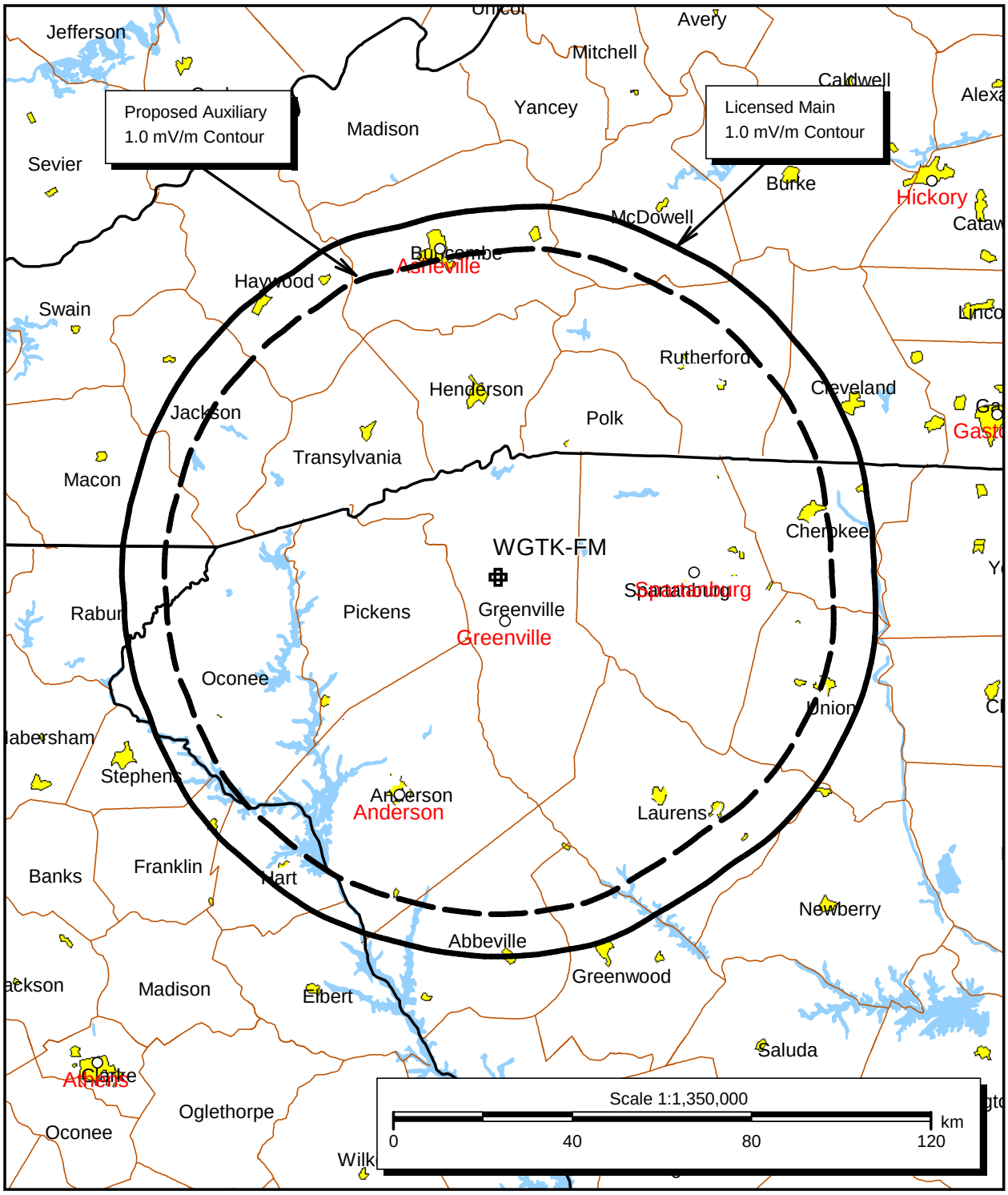
FIGURE 1



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