

ENGINEERING TECHNICAL STATEMENT PREPARED BY WILLIAM T. GODFREY, JR. OF THE FIRM KESSLER AND GEHMAN ASSOCIATES, INC., TELECOMMUNICATIONS CONSULTING ENGINEERS IN CONNECTION WITH A MINOR MODIFICATION APPLICATION OF THE WPBD NCE-FM CONSTRUCTION PERMIT (FILE NUMBER 00001670220) FOR GEORGIA PUBLIC TELECOMMUNICATIONS COMMISSION (GPTC).

SUMMARY

The firm Kessler and Gehman Associates was retained by Georgia Public Telecommunications Commission (GPTC) to prepare engineering studies and the engineering portion of a minor modification of construction permit application for the authorized WPBD NCE-FM facility requesting to make minor changes to the antenna pattern and antenna height.

ANTENNA PATTERN

The antenna azimuth pattern for the proposed facility is a calculated envelope pattern. The attached azimuth pattern exhibit plots the proposed azimuth pattern every ten degrees and demonstrates that the 2 dB per 10 degree requirement and the 15 dB front to back ratio requirement are satisfied pursuant to §73.316 of the FCC rules.

PRINCIPAL COMMUNITY

The attached exhibit demonstrates compliance with §73.515 of the FCC rules such that the that the principal community of Bainbridge, GA will be completely encompassed by the proposed facility's F(50,50) 60.0 dBuV/m contour in all azimuthal directions. Therefore, the proposed transmitter location, on the basis of the proposed effective radiated power (ERP) and antenna height above average terrain (HAAT), will provide a minimum field strength of 1 mV/m (60 dBu) over at least 50 percent of the proposed Bainbridge, GA community of license and it will also reach more than 50 percent of the population within the community as required.

INTERFERENCE STUDIES

The attached NCE FM Interference Study was calculated using V-Soft's FMCommander Version 7.1.43 professional FM allocation software, USGS 03 second terrain elevation

database, and the most recent FCC FM and TV (for TV6) databases. The attached NCE FM Interference Study verifies that the proposed facility's F(50,10) interfering contours will not overlap any applicable station's F(50,50) 60.0 dBuV/m protected service contours and that the proposed facility's F(50,50) 60.0 dBuV/m protected service contour will not be overlapped by any applicable station's F(50,10) interfering contours. As underlined in this section, USGS 03 second terrain elevation database was used, and the application requests the FCC to also use this database.

TV CHANNEL 6 STUDIES - INTERFERENCE ACCEPTANCE

The attached TV Channel 6 spacing study was calculated using V-Soft's FMCommander Version 7.1.43 professional FM allocation software, the USGS 3 second terrain elevation database, and the most recent FCC FM and TV (for TV Channel 6 studies) databases. §73.525(a)(1) of the FCC Rules states that an affected TV Channel 6 station is a TV broadcast station operating on Channel 6 that is located within 246 km of a NCE FM station operating on Channel 203. The proposed facility's tower site is approximately 53.6 km from the WABW-DT Channel *6 DTV facility; therefore, the WABW-DT Channel *6 post-transition DTV facility is considered an affected TV Channel 6 station since it is within 246 km of the proposed facility. The WABW-DT Channel *6 facility, as adopted in the Post-Transition Table of Allotments¹, is licensed to GPTC. Since GPTC is the licensee for the WABW-DT Channel *6 post-transition DTV facility, it hereby accepts all interference that the DTV Channel 6 station may receive from the proposed new Channel 203 NCE-FM facility. Accordingly, the proposed facility fully complies with §73.525 of the FCC rules pertaining to TV Channel 6 stations since GPTC accepts any interference that the proposed new NCE-FM facility may cause to its WABW-DT Channel *6 post-transition DTV facility.

INTERMEDIATE FREQUENCY INTERFERENCE (53RD & 54TH CHANNELS)

The proposed facility's site will meet all separation requirements pertaining to intermediate frequency ("IF") interference. The IF station with the narrowest gap with respect to distance

¹ ORDER GN Docket No. 12-268 *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auction* (See in §76.622(j) of the FCC Rules).

from the proposed facility's transmitter site ($203 + 53 = 256$ & $203 + 54 = 257$) is the licensed WEBZ-FM Channel 257 Class C2 facility located approximately 132.4 km from the proposed facility's transmitter site where a separation of 15.0 km is required; therefore, the distance is easily met with a margin of 117.4 km.

FM BLANKETING INTERFERENCE

Blanketing is defined as interference to the reception of other broadcast stations which is caused by the presence of an FM broadcast signal of 115 dBu (562 mV/m) or greater signal strength in the area adjacent to the antenna of the transmitting station. The 115 dBu contour is referred to as the blanketing contour and the area within this contour is referred to as the blanketing area. The proposed facility's blanketing contour extends 0.97 km from its transmitter and it is understood that GPTC must assume full financial responsibility for remedying new complaints of blanketing interference for a period of one year to all broadcast stations within the proposed facility's blanketing contour.

CERTIFICATION

This engineering technical statement was prepared by William T. Godfrey, Jr., President and CEO of the professional firm Kessler and Gehman Associates, Inc., Telecommunications Consulting Engineers having offices in Gainesville, Florida, and has been working with the firm in the field of television and radio broadcast consulting since 1998 and his qualifications are a matter of record with the Federal Communications Commission. Mr. Godfrey is a Graduate from the University of North Florida and a Distinguished Military Graduate from the University of Florida. As a Professional in the field of Telecommunications he states under penalty of perjury that the information contained in this report is true and correct to the best of his knowledge and belief.

A handwritten signature in blue ink that reads 'William T. Godfrey, Jr.'.

WILLIAM T. GODFREY, JR., CBT
Kessler and Gehman Associates, Inc.
Consulting Engineers

February 19, 2024