

ENGINEERING TECHNICAL STATEMENT PREPARED BY WILLIAM T. GODFREY, JR. OF THE FIRM KESSLER AND GEHMAN ASSOCIATES, INC. (KGA), TELECOMMUNICATIONS CONSULTING ENGINEERS IN CONNECTION WITH A MINOR MODIFICATION OF CONSTRUCTION PERMIT APPLICATION (0000004085). THIS “PRIORITY-ONE” APPLICATION REQUESTS A WAIVER TO INCREASE THE WVNS-DT CHANNEL 11 POST-AUCTION FACILITY’S ERP GREATER THAN THE MAXIMUM ALLOWABLE LIMIT IN ORDER TO COMPENSATE FOR POPULATION LOSSES IN EXCESS OF ONE PERCENT AS A RESULT OF THE CHANNEL REPACK.

FIRST PRIORITY FILING WINDOW ELIGIBILITY

The firm Kessler and Gehman Associates, Inc. (KGA) has been retained by Nexstar Broadcasting, Inc. (Nexstar) to prepare engineering studies and the engineering portion of a minor modification of a post-auction construction permit application. The WVNS-DT Channel 11 post-auction facility, based on its assigned post-auction parameters, is a station predicted to experience a loss in population served in excess of 1% because of new station-to-station interference. Therefore, the WVNS-DT Channel 11 facility is eligible to file in the First Priority Filing Window. In order for the WVNS-DT Channel 11 post-auction facility to recover the population losses as a result of the repack, Nexstar is filing a maximization application requesting authorization to change the authorized post-auction ERP from 4.0 kW to 10.0 kW. No other changes are requested.

WAIVER OF SECTION 73.622(F)(7)(ii) – MAXIMUM ALLOWABLE ERP (ZONE I)

For DTV stations located in Zone I that operate on channels 7-13 with an HAAT that exceeds 305 meters, the allowable maximum ERP expressed in decibels above 1 kW (dBk) is determined using the following formula, with HAAT expressed in meters:

$$\text{ERP}_{\text{max}} = 97.35 - 33.24 \cdot \log_{10}(\text{HAAT})$$

WVNS is a Zone 1 station with an HAAT of 566.3 m; therefore, the maximum allowable ERP pursuant to section 73.622(F)(7)(ii) of the rules is 3.8 kW.

$$97.35 - 33.24 \cdot \log(566.3) = 5.84 \text{ dBk} = 3.8 \text{ kW}$$

The WVNS-DT Channel 11 post-auction facility was assigned an ERP of 3.7 kW which is 0.1 kW below the maximum allowable ERP based on HAAT. There are only four other full-service DTV facilities in the Bluefield-Beckley-Oak Hill, WV market and none of them serve larger areas than WVNS which eliminates use of the “Largest Station in the Market” option to increase ERP (see table below).

Market Name: Bluefield-Beckley-Oak Hill, WV		
DMA Rank	TV Households	Population 2+
159	127,090	292,379
African American HH Rank	Hispanic HH Rank	Asian HH Rank
141	197	179

Station	Affiliation
WLFB-TV	INDEPENDENT
WOAY-TV*	ABC
WSWP-TV	PBS
WVNS-TV*	CBS
WVVA-TV*	NBC

Based on the FCC 2015 and 2017 pre- and post-auction baseline studies (see table below), the assigned WVNS-DT Channel 11 post-auction facility is calculated to serve only 583,347 persons compared to the WVNS-DT Channel 8 pre-auction licensed facility which is calculated to serve 612,197 persons. Therefore, the WVNS-DT Channel 11 post-auction facility will lose 4.72% of its total service population as a result of the repack which equates to 28,850 out of 612,197 persons lost. Since the WVNS-DT Channel 11 post-auction facility is already maximized using a top-mount, nondirectional antenna with an assigned ERP that is only 0.1 kW below the maximum power limit; the only thing WVNS can do to recover the 4.72% population loss is request a waiver to exceed the maximum power limit.

Accordingly, this Priority-One application hereby respectfully requests a waiver of Section 73.622(F)(7)(ii) of the FCC rules to increase the ERP beyond the 3.8 kW limit and maximize to an ERP of 10 kW which is in the public’s interest since the fringe

area where service would be lost is the very area where the WVNS service population depends on off-air signals the most.

FacID	FileNumber	Call	Ch	City	St	Type	NoiseLimited		TerrainLimited		InterferenceFree	
							Area	Population	Area	Population	Area	Population
74169	BLCDT20050923AGX	WVNS-TV	8	LEWISBURG	WV	DT	32,404.4	911,784	26,324.0	612,281	26,295.8	612,197
74169	BLCDT20050923AGX	WVNS-TV	11	LEWISBURG	WV	DT	32404.4	911784	25921.4	587064	25604.8	583347

CERTIFICATION

This technical statement was prepared by William T. Godfrey, Jr., Engineering Associate with the firm Kessler and Gehman Associates, Inc. having offices in Gainesville, Florida, and has been working with the firm in the field of radio and television broadcast consulting since 1998. Mr. Godfrey was 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.


WILLIAM T. GODFREY, JR., CBT
Engineering Associate

15 September, 2017