

# W270DQ Engineering Exhibit

## Minor Change Application

### BNPFT-20180507ABO

### Facility ID No. 202582

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This exhibit is for Long Form 349 permit of W270DQ, Facility ID No. 202582, BNPFT-20180507ABO. It specifies a change in antenna location of approximately 1 km.

#### **Antenna Location**

The proposed antenna is to be mounted on an existing support tower identified by registration number 1226277 at 69 meters above ground. Below as **Figure 1** is an overlap and spacing study from which it can be determined that this proposal is compliant with 73.1204.

#### **Fill-in and Minor Change Status**

This proposal is to serve as a fill-in translator for station WAAX, Facility ID 22996, Gadsden, AL. The map of **Figure 2** demonstrates that the proposed 60 dBu contour is contained within that of the 2 mV/m of that facility.

The required service contour overlap of existing and proposed facilities is demonstrated in **Figure 2**.

#### **RF Fields Statement**

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 antenna system is to be a Nicom "BKG77", 1- element antenna mounted 69 meters above ground. For purposes of this analysis the FM Model web app has been set to calculate values for an "Opposed V Dipole" type of antenna element array, operated with an effective radiated power of 0.250 Kilowatts in both the horizontal and vertical. At 2 meters above the surface, at 68.6 meters from the base of the tower, this proposal will contribute worst case, 1.0 microwatts per square centimeter, or 0.1 percent of the allowable ANSI limit for controlled exposure, and 0.50 percent of the allowable limit for uncontrolled exposure.

This figure is less than 5% of the applicable FCC exposure limit at all locations extending out from the base of the tower. Section 1.1307(b)(3) excludes applications when the calculated level is predicted to be less than 5% of the applicable exposure limit. It is therefore believed that this proposal is in compliance with OET Bulletin Number 65 as required by the Federal Communications Commission.

Further, the applicant will see that signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The site itself is restricted from public access. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the tower for maintenance or inspection..

**Figure 1. Overlap and Spacing Study**

W2700Q at ASR 1226277 Capstar TX, LLC											
REFERENCE	CH#	270D	-	101.9 MHz, Pwr= 0.25 kw, HAAT= 178.7 M, COR= 380 M	Average Protected F(50-50)= 17.56 km				DISPLAY DATES DATA 09-16-19 SEARCH 09-16-19		
Omni-directional											
CH CITY	CALL	TYPE STATE	ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT* (in km)
270D	W2700Q Gadsden	CP	_C_	108.0 288.0	1.17 BNPFT20180507ABO	34 01 42.6 85 59 52.4	0.250		---Reference---		
271C1	WDRM Decatur	LIC	_CX	326.3 145.9	102.03 BMLH20060413ACH	34 47 36.0 86 37 51.0	100.000 299	107.0 532	73.8 Capstar TX, LLC	-20.3*	5.3
270C0	WHYY-FM Montgomery	LIC	_CX	185.5 5.4	181.84 BMLH20070402ADP	32 24 13.0 86 11 47.0	100.000 334	172.9 397	72.9 Cumulus Licensing LLC	-9.9	49.3
271D	W271CE Oxford	LIC	_C_	164.3 344.4	47.45 BLFT20160518ACD	33 37 14.6 85 52 18.1	0.010	15.6 569	11.0 Board of Trustees of Jacks	13.2	8.8
269D	W269AX Anniston Translator For WYFK, Columbus, GA	LIC	_CN	154.8 334.9	46.21 BLFT19960220TC	33 39 20.0 85 47 50.0	0.010 167	11.8 425	8.3 Bible Broadcasting Network	15.8	10.2
216A	WAYU Steele	LIC	_VX	246.9 66.7	20.78 BLED20101105AAW	33 57 29.6 86 13 01.0	0.150 230	0.0 468	0.0 Way Media, Inc	9.5R	11.3M
270D	W270CE Rome	LIC	_DC_	91.8 272.3	87.96 BLFT20170213AAE	34 00 14.0 85 03 22.0	0.240	42.7 381	12.3 Edgewater Broadcasting, Inc	26.3	16.2
269A	WMXN-FM Stevenson	LIC	_CX	14.8 194.9	74.99 BLH20050408ACH	34 41 02.0 85 48 04.0	2.300 165	41.4 563	27.3 Southern Torch, Inc.	18.1	24.7
273C1	WDXB Pelham	LIC	_CX	231.1 50.7	103.62 BLH20080613AAJ	33 26 38.0 86 52 47.0	90.000 313	9.9 494	71.0 Capstar TX, LLC	74.8	30.8
270A	WOCE Ringgold	LIC	_NCN	38.8 219.3	134.31 BLH19950525KA	34 58 11.0 85 05 10.0	1.300 214	79.9 469	27.8 North Georgia Radio Group,	37.8	56.5
270D	W270AS Carrollton	LIC	_C_	119.2 299.8	105.36 BLFT20101209AJH	33 33 54.0 85 01 03.0	0.010 177	25.2 482	7.5 Radio Training Network, Inc	60.9	38.7
272A	WQTU Rome	LIC	_CX	72.4 252.8	75.17 BMLH20190719AAD	34 14 02.0 85 13 50.0	1.100 227	2.1 451	29.6 Rome Radio Partners, LLC	54.0	44.4
271D	W271BN Birmingham	LIC	_C_	230.6 50.2	95.50 BLFT20130702ABK	33 29 02.0 86 48 21.0	0.085 349	25.1 537	16.9 Educational Media Foundati	51.3	49.4
Terrain database is NGDC 30 SEC , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM In & Out distances between contours are shown at closest points. Reference zone= East Zone, Co to 3rd adjacent All separation margins (if shown) include rounding. Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X) *="affixed to 'IN' or 'OUT' values = site inside restricted contour. <= Station meets FCC minimum distance spacing for its class.											

**Figure 2. Fill-in and Minor Change Contour Map**

