

ENGINEERING STATEMENT

In support of a request for

Displacement for LPTV Translator Application

K44GS-D Channel 26

Wichita Falls, TX

Facility ID: 72353

PURPOSE

MARSAND, INC. has been retained by North Texas Public Broadcasting, Inc. (“NTPB”), licensee of TV translator K44GS-D, the “station”, in Wichita Falls, TX, to prepare this engineering statement in support of a displacement application and accompanying Special Temporary Authority (STA).

DISCUSSION

The station currently operates on channel 44 which is outside the broadcast television band plan implemented in the *Incentive Auction Closing and Channel Reassignment Public Notice*, DA 17-314, released April 13, 2017. The station has received a letter from T-Mobile providing 120 day notice to vacate its channel before T-Mobile commences operations or testing as the station will likely cause interference operating on its current channel. Following the procedure set forth in the Public Notice on June 14, 2017 (DA 17-584 “Incentive Auction Task Force and Media Bureau Set Forth Tools Available to LPTV/Translator Stations Displaced Prior to the Special Displacement Window”) NTPB respectfully requests a waiver of the Displacement Freeze for this application. The grant of this waiver allows this station to continue servicing its viewers with minimal interruption.

INTERFERENCE STUDY

An interference study was performed on the proposed facility using the FCC TVStudy v2.2.4 software, and the results of which show no predicted new interference in excess of the allowable 0.50% to full-service and Class A stations or 2.00% to other LPTV’s. A summary is included as **Exhibit 1**.

ENVIRONMENTAL STATEMENT

The proposed facility has been evaluated according to FCC OET Bulletin No. 65 "Evaluating Compliance With FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields", Edition 97-01, and has been found to comply with the limits set forth in Section 1.1310 of the Rules. The total exposure as defined by the ANSI standard computations for occupational/controlled area is $0.4 \mu\text{W}/\text{cm}^2$, or 0.02% of the $1.82 \text{ mW}/\text{cm}^2$ maximum. The total exposure as defined by the ANSI standard computations for general population/uncontrolled area is 0.1% of the $363.3 \mu\text{W}/\text{cm}^2$ maximum. The proposed facility contributes power densities less than 5% of the exposure limit at this site and is therefore categorically excluded from further RF exposure evaluation. The Applicant agrees to maintain full compliance with the safety precautions to workers on the tower (controlled) and the general public (uncontrolled) by reducing or removing radiated power during the time of construction or maintenance on or near the antenna. The Applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from Radiofrequency Electromagnetic exposure in excess of FCC guidelines.

CONCLUSION

It is respectfully requested that the Commission grant this displacement application and accompanying request for STA for the facilities as specified herein.

DECLARATION

David Sanderford, EIT, declares and states that he is a graduate Electrical Engineer with a Bachelor of Science Degree in Electrical Engineering from the Georgia Institute of Technology, and his qualifications are known to the Federal Communications Commission, and that he is Vice-President of MARSAND, INC., a Registered Professional Engineering firm in the State of Texas, and that firm has been retained by North Texas Public Broadcasting, Inc., to perform the engineering support as contained in this report.

All facts contained herein are true of his own knowledge except where stated to be on information or belief provided by others, and as to those facts, he believes them to be true.

I declare under penalty of perjury that the foregoing is true and correct.



David Sanderford, EIT
Vice-President - MARSAND, INC.

Executed this 30th day of November, 2017
State of Texas

MARSAND, INC.

Matthew A. Sanderford, Jr., P.E.

EXHIBIT 1

Study created: 2017.11.30 00:18:37

Study build station data: LMS TV 2017-11-25 (19)

Proposal: K44GS-D D26 LD APP WICHITA FALLS, TX
File number: k44gs-d_disp_26b_01
Facility ID: 72353
Station data: User record
Record ID: 375
Country: U.S.

Build options:
Protect pre-transition records not on baseline channel

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	K25JO-D	D25	LD	LIC	ALTUS, OK	BLDPT20100709AKD	108.8 km
No	K25IC	N25+	TX	LIC	LAWTON, OK	BLTTL20070212ACG	78.4
No	K25IC	D25	LD	CP	LAWTON, OK	BDFCDTL20100202ABP	77.5
No	KWTV-DT	D25	DT	CP	OKLAHOMA CITY, OK	BLANK0000028029	216.0
No	KPXD-TV	D25	DT	CP	ARLINGTON, TX	BLANK0000027491	213.4
No	KPXD-TV	D25	DT	APP	ARLINGTON, TX	BLANK0000034349	213.4
No	K25CQ-D	D25	LD	LIC	CHILDRESS, TX	BLDPT20100708TPX	162.7
No	K25FW-D	D25	LD	LIC	CORSICANA, TX	BLDPT20110113ABK	209.3
No	KSAS-TV	D26	DT	LIC	WICHITA, KS	BLCDT20021120AAN	443.9
No	KGKY-LD	D26	LD	APP	JOPLIN, MO	BLANK0000010877	367.1
No	KGKY-LD	D26	LD	APP	JOPLIN, MO	BLANK0000010934	340.0
Yes	KTEN	D26	DT	LIC	ADA, OK	BLCDT20060630ABA	195.3
No	K47LR-D	D26	LD	APP	ELK CITY, OK	BLANK0000029971	174.8
No	K44IW-D	D26	LD	APP	HOLLIS, OK	BLANK0000029963	146.1
No	K26IR-D	D26	LD	LIC	STRONG CITY, OK	BLDPT20100521AEG	229.4
No	KOTV-DT	D26	DT	CP	TULSA, OK	BLANK0000028019	357.1
No	K26IS-D	D26	LD	LIC	WOODWARD, ETC., OK	BLDPT20101007ABL	304.3
No	KTES-LD	D26	LD	APP	ABILENE, TX	BLANK0000034274	215.1
No	K16HB-D	D26	LD	CP	AMARILLO, TX	BDISDTL20140416AAG	336.9
No	K26KP-D	D26	LD	CP	CISCO, TX	BNPDTL20100304AAU	174.6
No	K26KC-D	D26	LD	LIC	DALLAS, TX	BLDPT20141017ACV	210.0
No	KCEB	D26	DT	LIC	LONGVIEW, TX	BLANK0000001435	385.0
No	K26LK-D	D26	LD	CP	LUBBOCK, TX	BNPDTL20091218AFD	304.7
No	K26KN-D	D26	LD	CP	MCCLEAN, TX	BNPDTL20100406ACQ	239.2
No	KMID	D26	DT	LIC	MIDLAND, TX	BLCDT20110218AAS	396.8
No	KJBA-LD	D26	LD	CP	SAN ANGELO, TX	BDISDTL20101007ABJ	318.0
No	KTAL-TV	D26	DT	CP	TEXARKANA, TX	BLANK0000028380	440.3
No	K26JR-D	D26	LD	LIC	TURKEY, TX	BLDPT20101115FOD	238.6
No	KXXV	D26	DT	LIC	WACO, TX	BLCDT20050630AFE	307.7
No	K48KY-D	D27	LD	CP	ALTUS, OK	BLANK0000029975	108.8
No	K46AI-D	D27	LD	APP	DURANT, OK	BLANK0000029428	203.9
No	KFOR-TV	D27	DT	LIC	OKLAHOMA CITY, OK	BLCDT20050701ABR	216.0
No	KODF-LD	D27	LD	LIC	BRITTON, TX	BLDPT20100324ACQ	209.1
No	KDFI	D27	DT	APP	DALLAS, TX	BLANK0000034507	208.9
No	KDFI	D27	DT	CP	DALLAS, TX	BLANK0000027211	213.4
No	K27HM-D	D27	LD	LIC	QUANAH, TX	BLDPT20110118AAM	110.4
No	K27LU-D	D27	LD	LIC	STEPHENVILLE, TX	BLDPT20140610AAO	181.4

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D26
Mask: Full Service
Latitude: 33 53 0.00 N (NAD83)
Longitude: 98 36 11.00 W
Height AMSL: 419.1 m
HAAT: 0.0 m
Peak ERP: 15.0 kW
Antenna: Omnidirectional
Elev Pattn: Generic
Elec Tilt: 1.75

MARSAND, INC.

Matthew A. Sanderford, Jr., P.E.

50.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	15.0 kW	109.5 m	45.0 km
45.0	15.0	120.8	45.9
90.0	15.0	117.7	45.7
135.0	15.0	115.3	45.5
180.0	15.0	110.8	45.1
225.0	15.0	103.7	44.4
270.0	15.0	114.7	45.4
315.0	15.0	112.1	45.2

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 113 m

Distance to Canadian border: 1622.2 km

Distance to Mexican border: 527.9 km

Conditions at FCC monitoring station: Kingsville TX

Bearing: 174.3 degrees Distance: 719.3 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 321.6 degrees Distance: 908.1 km

Study cell size: 1.00 km

Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%

Maximum new IX to LPTV: 2.00%

No IX check failures found.