

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of NEW YORK SPECTRUM HOLDING COMPANY, LLC, licensee of digital Low Power Television Station KQHO-LD, Channel 20 in Houston, Texas, in support of its displacement Application for Construction Permit to specify operation on Channel 27. No change in the KQHO-LD site location or antenna height is proposed herein.

This station is being displaced as a result of the spectrum auction and the assignment of repack Channel 20 to KUVV-CD in Missouri City, Texas, just 26 kilometers away from the KQHO-LD site. Operation of KUVV-CD on the same channel as KQHO-LD in the same market would result in an impermissible level of interference between both stations.

It is proposed to mount a broadband directional antenna at the 322-meter level of the existing 325-meter downtown Houston building on which the present KQHO-LD antenna is located. The proposed effective radiated power for the facility is 15.0 kW in horizontal plane. Exhibit B is a map upon which the predicted 51 dBu service contour is plotted.

Included as Exhibit C is a summary report from a TVStudy interference analysis for the proposed facility. Our study employed a cell size of 1.0 kilometer and increment spacing of 1.0 kilometer. Further the applicant proposes use of a full-service mask filter. The results indicate that the proposed KQHO-LD facility meets the Commission's interference requirements to all full-power and low-power co-channel and adjacent-channel television facilities.

A detailed power density calculation is provided in Exhibit D.

EXHIBIT A

Since no change in the overall height or location of the existing building is proposed herein, the Federal Aviation Administration has not been notified of this application. In addition, and for the same reasons, no FCC antenna structure registration is required for this building.

I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.

A handwritten signature in blue ink, appearing to read "K. T. Fisher". The signature is written in a cursive, stylized font.

KEVIN T. FISHER

April 20, 2018

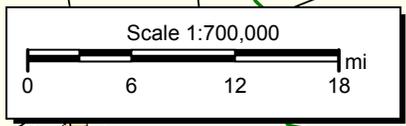
**CONTOUR POPULATION
2015 U.S. CENSUS DATA
5,684,201 (2,117,017 HH)**

Smith and Fisher, LLC

**PROPOSED CH. 27
51 DBU CONTOUR**



**EXHIBIT B
PREDICTED SERVICE CONTOUR
PROPOSED KQHO-LD
CH. 27 - HOUSTON, TEXAS**



TVSTUDY INTERFERENCE ANALYSIS RESULTS
 PROPOSED KQHO-LD
 CHANNEL 27 – HOUSTON, TEXAS

Study created: 2018.04.20 12:00:12

Study build station data: LMS TV 2018-04-07

Proposal: KQHO-LD D27 LD LIC HOUSTON, TX
 File number: BLDL20121207ACT
 Facility ID: 127916
 Station data: User record
 Record ID: 173
 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	KRIV	D26	DT	APP	HOUSTON, TX	BLANK0000035805	24.1 km
No	KRIV	D26	DT	LIC	HOUSTON, TX	BLCDT20111212AHM	24.1
No	KXXV	D26	DT	LIC	WACO, TX	BLCDT20050630AFE	255.9
No	KTVE	D27	DT	LIC	EL DORADO, AR	BLCDT20070105ABH	473.9
No	KWCE-LP	N27-	TX	LIC	ALEXANDRIA, LA	BLTTL20060714ACI	331.5
No	KNYS-LD	D27	LD	LIC	NATCHITOCHE, LA	BLDTL20120203AAD	306.2
No	K42FE-D	D27	LD	APP	SHREVEPORT, LA	BLANK0000049061	337.6
No	W27DJ-D	D27	LD	CP	SULPHUR, LA	BNPDTL20100407ABL	190.3
No	KAOB-LD	D27	LD	LIC	BEAUMONT, TX	BLDTL20090910AAA	134.4
No	KODF-LD	D27	LD	LIC	BRITTON, TX	BLDTL20100324ACQ	349.6
No	KORO	D27	DT	LIC	CORPUS CHRISTI, TX	BLCDT20060626ACE	317.7
No	KDFI	D27	DT	APP	DALLAS, TX	BLANK0000034507	349.5
No	KDFI	D27	DT	CP	DALLAS, TX	BLANK0000027211	344.5
Yes	K27JJ-D	D27	LD	LIC	FORBES/JASPER CTY, TX	BLDTL20110610AAD	127.2
Yes	KBVO	D27	DT	LIC	LLANO, TX	BLCDT20090622ABA	324.0
No	KLUF-LP	D27-	LD	CP	LUFKIN, TX	BLANK0000010680	187.1
Yes	KBTB-TV	D27	DT	CP	PORT ARTHUR, TX	BLANK0000034248	139.7
No	K27LF-D	D27	DC	LIC	SAN ANTONIO, TX	BLANK0000001558	285.7
No	KNIC-CD	D27	DC	CP	SAN ANTONIO, TX	BLANK0000030591	304.7
No	K27LU-D	D27	LD	LIC	STEPHENVILLE, TX	BLDTL20140610AAO	395.9
No	KDKJ-LD	D27	LD	LIC	TYLER, TX	BLANK0000001765	277.8
No	W28EL-D	D28	LD	CP	VINTON, LA	BNPDTL20100407AAV	174.5
No	KYLE-TV	D28	DT	LIC	BRYAN, TX	BLCDT20090612ABZ	145.0

No	KUGB-CD	D28	DC LIC	HOUSTON, TX	BLDTA20120801ALF	25.4
No	KETX-LP	D28	LD CP	LIVINGSTON, TX	BDISDTL20090814AAJ	116.7
No	KUNU-LD	D28	LD LIC	VICTORIA, TX	BLDTL20131112BSU	198.8
No	KWKT-TV	D28	DT CP	WACO, TX	BLANK0000028462	255.3
No	KWKT-TV	D28	DT APP	WACO, TX	BLANK0000034740	255.3
No	KHTX-LP	N30-	TX LIC	HUNTSVILLE, TX	BLTTL19980813JD	105.4

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D27
Mask: Full Service
Latitude: 29 45 36.80 N (NAD83)
Longitude: 95 21 49.70 W
Height AMSL: 337.0 m
HAAT: 0.0 m
Peak ERP: 15.0 kW
Antenna: KQHO-LD 0.0 deg
Elev Pattn: Generic

50.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	15.0 kW	317.5 m	57.5 km
45.0	0.002	323.8	11.0
90.0	0.195	327.8	33.9
135.0	15.0	326.8	58.0
180.0	15.0	324.1	57.9
225.0	15.0	322.1	57.8
270.0	15.0	321.8	57.8
315.0	15.0	316.3	57.5

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 323 m

Distance to Canadian border: 1739.1 km

Distance to Mexican border: 447.8 km

Conditions at FCC monitoring station: Kingsville TX

Bearing: 224.3 degrees Distance: 356.2 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 324.8 degrees Distance: 1458.3 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.

POWER DENSITY CALCULATION

PROPOSED KQHO-LD
CHANNEL 27 – HOUSTON, TEXAS

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Houston facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 15.0 kW, an antenna radiation center 322 meters above ground, and assuming a vertical relative field value of 10 percent at the steeper elevation angles for the proposed panel antenna, a maximum power density value two meters above ground of 0.000049 mW/cm² is calculated to occur near the base of the tower. Since this is significantly less than 0.1 percent of the 0.37 mW/cm² reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 27 (548-554 MHz), a grant of this proposal may be considered a minor environmental action with respect to public exposure to non-ionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive non-ionizing radiation.