

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of IGLESIA MANMIN TODA LA CREACION USA INC., licensee of digital Low Power Television Station KZHO-LD, Channel 3 in Houston, Texas, in support of this request for Special Temporary Authority (STA) to specify a change in transmitter site location, effective radiated power, and effective antenna height.

It is proposed to mount a directional 1-bay horizontally-polarized Yagi antenna at the 75-meter level of an existing 75.9-meter communications tower located approximately 7.5 kilometers north of the licensed KZHO-LD transmitter site. The proposed effective radiated power for the facility is 0.45 kW in the horizontal plane. Exhibit B is a map upon which the predicted 43 dBu STA service contour is plotted. Exhibit C is a map comparing the service contour of the licensed KZHO-LD facility with that proposed herein. As shown, the proposed STA contour is completely contained within that licensed to the station. Azimuth pattern data for the proposed SAM-137 antenna are provided in Exhibit D.

Exhibit E 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 simple mask filter. The results indicate that the proposed KZHO-LD STA facility meets the Commission's interference requirements to all present and authorized full-power and low-power co-channel and adjacent-channel television facilities.

A detailed power density calculation is provided in Exhibit F.

EXHIBIT A

Since no change in the overall height or location of the existing tower is proposed herein, the Federal Aviation Administration has not been notified of this application. In addition, the Federal Communications Commission has assigned Antenna Structure Registration Number 1323158 to this tower.

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", with a stylized, elongated final stroke.

KEVIN T. FISHER

November 30, 2022

CONTOUR POPULATION
2020 U.S. CENSUS DATA
1,443,995 (575,763 HH)

SMITH AND FISHER, LLC

Humble

Aldine

Crosby

Barrett

290

43 DBU FCC
CONTOUR

Proposed Site

Harris

Houston

KZHO-LD

Jacinto City

Cloverleaf

Channelview

Highland

Spring Valley

Hunters Creek Village
Point Village

Galena Park

West University Place
Bellaire

610

Pasadena

Deer Park

South Houston

90 A
Harris City

Brookside Village

Pearland

Fresno

Friendswood

Webster

Taylor Lake

Scale 1:250,000

0 2 4 6 mi

EXHIBIT B
FCC 43 DBU SERVICE CONTOUR
PROPOSED KZHO-LD STA
CHANNEL 3 - HOUSTON, TEXAS

Manvel



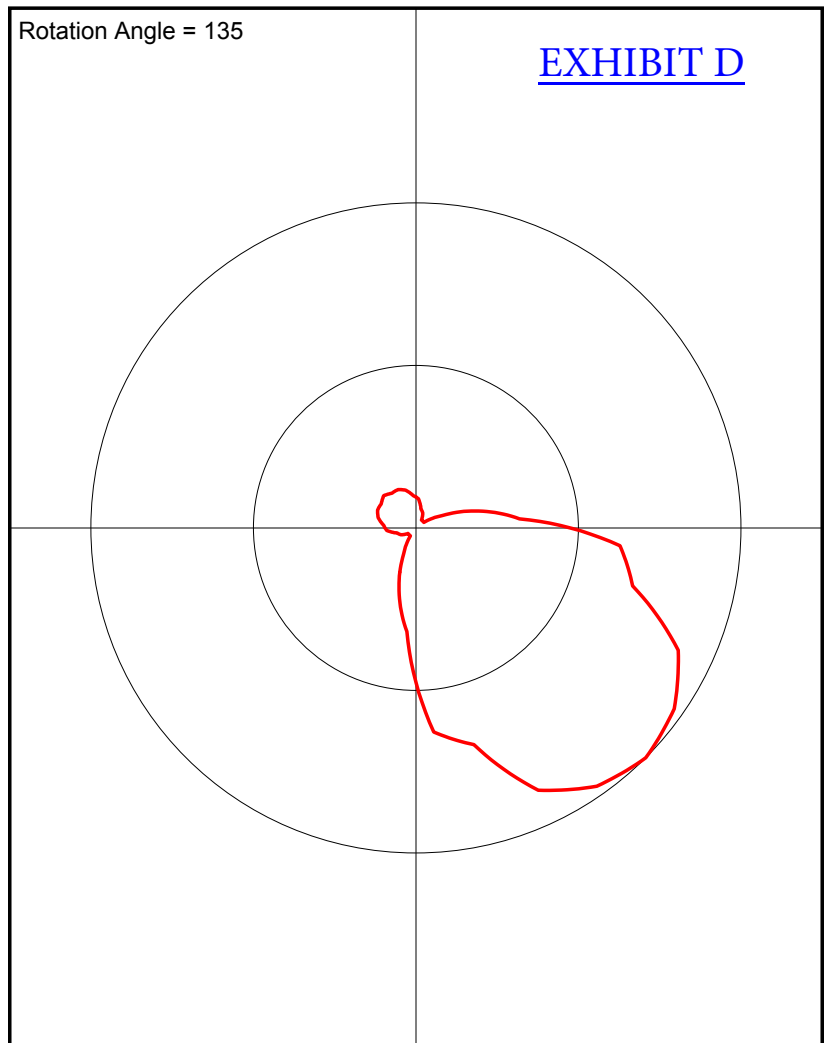
Antenna Pattern

Pre-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	1.0
10.0	0.97
20.0	0.89
30.0	0.69
40.0	0.63
50.0	0.32
60.0	0.2
70.0	0.09
80.0	0.03
90.0	0.03
100.0	0.03
110.0	0.05
120.0	0.06
130.0	0.09
140.0	0.1
150.0	0.12
160.0	0.13
170.0	0.13
180.0	0.14
190.0	0.13
200.0	0.13
210.0	0.12
220.0	0.1
230.0	0.09
240.0	0.06
250.0	0.05
260.0	0.03
270.0	0.03
280.0	0.03
290.0	0.09
300.0	0.2
310.0	0.32
320.0	0.63
330.0	0.69
340.0	0.89
350.0	0.97

Rotation Angle = 135

EXHIBIT D



TVSTUDY INTERFERENCE ANALYSIS RESULTS
PROPOSED KZHO-LD STA
CHANNEL 3 – HOUSTON, TEXAS

Study created: 2022.11.30 15:15:56

Study build station data: LMS TV 2022-11-15

Proposal: KZHO-LD D3 LD APP HOUSTON, TX

File number: BLANK0000195036

Facility ID: 130345

Station data: User record

Record ID: 47

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	K02RA-D	D2	LD	LIC	BEAUMONT, TX	BLANK0000179267	140.1 km
Yes	KLNK-LD	D2	LD	LIC	GROVETON, TX	BLANK0000121226	25.2
No	KLNK-LD	D2	LD	CP	GROVETON, TX	BLANK0000132752	7.5
No	K03IJ-D	D3	LD	LIC	COLLEGE STATION, TX	BLANK0000179215	129.1
No	K03IJ-D	D3	LD	CP	COLLEGE STATION, TX	BLANK0000184634	129.1
No	KLAO-LD	D3	LD	LIC	CORPUS CHRISTI, TX	BLDVL20121227AEF	298.7
No	KLAO-LD	D3	LD	CP	CORPUS CHRISTI, TX	BDISDVL20110901AAA	298.7
No	KODF-LD	D3	LD	LIC	Dallas, TX	BLANK0000113889	341.7
No	K03JE-D	D3	LD	LIC	VICTORIA, TX	BLANK0000199113	180.7
No	KAHO-LD	D4	LD	LIC	WOODVILLE, TX	BLANK0000005451	0.0

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D3

Mask: Simple

Latitude: 29 49 33.00 N (NAD83)

Longitude: 95 22 36.00 W

Height AMSL: 95.7 m

HAAT: 0.0 m

Peak ERP: 0.450 Kw

Antenna: SAM-137 135.0 deg

Elev Pattn: Generic

43.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.004 kW	72.8 m	10.5 km
45.0	0.000	77.8	6.1
90.0	0.102	79.6	23.7
135.0	0.450	85.3	32.8
180.0	0.102	82.3	24.1
225.0	0.000	78.3	6.1
270.0	0.004	72.5	10.5
315.0	0.009	69.0	12.4

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 77 m

Distance to Canadian border: 1734.0 km

Distance to Mexican border: 454.2 km

Conditions at FCC monitoring station: Kingsville TX

Bearing: 223.3 degrees Distance: 360.6 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 324.6 degrees Distance: 1451.7 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 KZHO-LD STA
CHANNEL 3 – 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 0.45 kW (H-only), an antenna radiation center 75 meters above ground, and assuming a vertical relative field value of 40% at the steeper elevation angles for the proposed SAM-137 antenna, maximum power density two meters above ground of 0.00045 mW/cm^2 is calculated to occur near the southeast base of the tower. Since this value is only 0.23 percent of the 0.20 mW/cm^2 reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 3 (60-66 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.