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ENGINEERING REPORT

KJST-LD, McAllen, TX LPTV Channel 11 Minor Change

ENGINEERING STATEMENT

INTERFERENCE PROTECTION RESULTS ON PROPOSED CHANNEL

The output from the FCC's current "TVStudy" software is attached demonstrating full compliance with the FCC's protection requirements.

Consent Agreements required for grant of this application: NONE

The applicant accepts any interference that is predicted to exist to the proposed facility by any licensed, authorized or previously proposed primary TV station. The applicant also accepts any interference that is predicted to exist to the proposed facility by any secondary TV facility that is given preferential status by the FCC over the Applicant's herein proposed facility. Additionally, as deemed necessary, the applicant may agree to consent to interference (either by a separate statement submitted with this initial application or by an amendment to this application) from another LPTV displacement application that has been submitted in the same filing window.

MEXICAN COORDINATION IS NOT REQUIRED

Since the proposed 48 dBu F50,90 contour is completely within the 48 dBu F50,90 contour of the channel 11 CP contour, it is respectfully requested that this application not require coordination with Mexico.

ENVIRONMENTAL STATEMENT

This proposal does not involve a site location specified under Section 1.1307(a) through (a)(8) of the FCC Rules.

The proposed LPTV produces an ERP that is equal to or less than 3 kilowatts.

Assuming: (a) a maximum ERP of 6 kilowatts (twice 3 kW for circular polarization); (b) a relative field of less than 0.3 in the critical downward angles; and (c) a distance of at least 80 meters from the lowest antenna element to 2 meters above ground level, the maximum power density is calculated as follows:

$$S = 33.4 (F)(F)(ERP) / [(R)(R)]$$

Where, S equals power density in uW/cm²
 F equals the relative field factor
 ERP equals the effective radiate power in watts
 R equals the distance in meters

$$= 33.4 (0.3)(0.3)(6,000) / [(80)(80)]$$

$$= 2.8 \text{ uW/cm}^2$$

2.8 uW/cm² represents less than 5% of the uncontrolled power density limit (315.3 uW/cm² for channel 14—channel 14 being the worst-case UHF channel or 200 uW/cm² for VHF). The electromagnetic radiation from this proposed operation will not produce a value in excess of the radiation standard. The electromagnetic radiation from the proposed operation will not combine with other facilities on or near the structure to produce a significant change in value.

If this is a structure that may support various other operations, the applicant will cooperate with the other operators in establishing a plan for work done on the structure in close proximity to the existing antenna.

tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: McAllen11d3kWf, Model: Longley-Rice
Start: 2021.01.07 08:40:13

Study created: 2021.01.07 08:40:13

Study build station data: LMS TV 2021-01-06

Proposal: KJST-LP D11 LD APP MCALLEN, TX
Facility ID: 40123
Station data: User record
Record ID: 1735
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	KZTV	D10	DT	LIC	CORPUS CHRISTI, TX	BLCDT20100111ADU	171.8 km
No	KSPG-LP	N11	TX	LIC	CARRIZO SPRINGS, TX	BLTVL20001013ACD	296.9
No	KHOU	D11	DT	LIC	HOUSTON, TX	BLCDT20120620ACK	454.7
No	DDKMHZ-LP	D11z	LD	APP	SAN ANTONIO, TX	BLANK0000004533	355.0
No	KVCT	D11	DT	CP	VICTORIA, TX	BPCDT20120105ABP	307.6
No	KVCT	D11	DT	LIC	VICTORIA, TX	BLCDT20120104AAJ	307.6

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D11
Mask: Full Service
Latitude: 26 15 25.30 N (NAD83)
Longitude: 98 13 54.50 W
Height AMSL: 123.3 m

HAAT: 0.0 m
Peak ERP: 3.00 kW
Antenna: Omnidirectional
Elev Pattn: Generic
Elec Tilt: 1.25

48.0 dBu contour:			
Azimuth	ERP	HAAT	Distance
0.0 deg	3.00 kW	87.6 m	43.5 km
45.0	3.00	94.8	44.8
90.0	3.00	93.9	44.7
135.0	3.00	91.0	44.2
180.0	3.00	91.5	44.3
225.0	3.00	88.5	43.7
270.0	3.00	74.7	41.0
315.0	3.00	74.7	41.0

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 87 m

Distance to Canadian border: 2219.5 km

**Proposal is within coordination distance of Mexican border
Distance to Mexican border: 14.5 km

Conditions at FCC monitoring station: Kingsville TX
Bearing: 14.6 degrees Distance: 136.1 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 339.0 degrees Distance: 1670.9 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%

Interference to proposal scenario 1									
Desired:	Call KJST-LP	Chan D11	Svc LD	Status APP	City, State MCALLEN, TX	File Number	Distance		
Undesireds:	KVCT	D11	DT	CP	VICTORIA, TX	BPCDT20120105ABP	307.6 km		
Service area		Terrain-limited		IX-free		Percent IX			
4174.2	800,231	4174.2	800,231	4174.2	800,231	0.00	0.00		
1765.1	727,254	1752.2	727,239	1752.2	727,239	0.00	0.00	(in Mexico)	