Section III - Engineering

TECHNICAL SPECIFICATIONS

Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX

1. Channel: 33

2. Frequency Offset:

☐ No offset ☐ Zero offset ☐ Plus offset ☒ Minus offset

3. Translator Input Channel No. Microwave

4. Primary station proposed to be rebroadcast:

Call Sign	City	State	Channel
KJLA	Ventura	CA	57

5. Antenna Location Coordinates: (NAD 27)

34 ° 13 ' 32 " ☒ N ☐ S Latitude

118 ° 03 ' 52 " ☐ E ☒ W Longitude

6. Antenna Structure Registration Number: 1026532

☐ Not applicable ☐ FAA Notification Filed with FAA

7. Antenna Location Site Elevation Above Mean Sea Level: 1731 meters

8. Overall Tower Height Above Ground Level: 166 meters

9. Height of Radiation Center Above Ground Level: 31 meters

10. Maximum Effective Radiated Power (ERP) Towards Radio Horizon: 12.5 kW

11. Maximum ERP in any Horizontal and Vertical Angle: 82.5 kW

12. Transmitting Antenna: ☐ Nondirectional ☒ Directional "Off-the-shelf" ☐ Directional composite

Manufacturer	MCI	Model	955318

Directional Antenna Relative Field Values:

Rotation: 125 ° ☐ No rotation ☐ N/A (Nondirectional)

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
0		60		120		180		240		300	
10		70		130		190		250		310	
20		80		140		200		260		320	
30		90		150		210		270		330	
40		100		160		220		280		340	
50		110		170		230		290		350	
Additional Azimuths											

NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.

CERTIFICATION

13. **Interference.** The proposed facility complies with all of the following applicable rule sections. Check all those that apply. ☒ Yes ☐ No See Explanation in Exhibit No.

TV broadcast analog system protection.

a. ☒ 47 C.F.R. Section 74.705.

Digital TV station protection.

b. ☒ 47 C.F.R. Section 74.706.

Low Power TV and TV translator station protection.

c. ☒ 47 C.F.R. Section 74.707.

14. **Environmental Protection Act.** The proposed facility is excluded from environmental processing under 47 C.F.R. Section 1.1306 (*i.e.*, the facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine RF compliance. An **Exhibit is required.** ☒ Yes ☐ No See Explanation in Exhibit No. Exhibit No.

By checking "Yes" above, 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.

PREPARER'S CERTIFICATION ON PAGE 6 MUST BE COMPLETED AND SIGNED.

SECTION III PREPARER'S CERTIFICATION

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name: B.W. St. Clair		Relationship to Applicant (e.g., Consulting Engineer): Engineering Consultant
Signature: B.W. St. Clair		Date: 7/25/2001
Mailing Address: 2355 Ranch Drive		
City: Westminster	State or Country (if foreign address): CO	ZIP Code: 80234
Telephone Number (include area code): 303-465-5742	E-Mail Address (if available): stcl@aol.com	

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

Engineering Exhibit

It is proposed to operate on channel 33 at a location inside the protected contour of KMEX-TV, channel 34. The proposed location is on Mt. Wilson within 0.22 km of both the KMEX-TV licensed location and a construction permit. A waiver is requested of §74.705(b)(I) which requires that an adjacent channel translator be outside the protected contour of the full service station. The ratio of the maximum powers (using the license of KMEX-TV which is lower then the CP) is 82.5/1950 = 0.042 or -13.7dB. The allowed adjacent channel ratio in §74.706(d)(4) is +15.0dB. The safety margin is 28.7dB. To further establish that the proposed translator will not cause interference, an interference study was run using the Longley-Rice Terrain Dependent population count in accordance with OET Bulletin 69. This study showed an actual population loss of 0% (not rounded down from a fraction).

BWS 07/25/01
e:/pending/KMEX

KMEX-TV LICENSE VS. KSMV-LP DISPLACEMENT TO CHAN. 33
MOUNT WILSON, CA 82.5 kW ERP MAX. AND 12.5 kW ERP ON THE HORIZON

V-Soft Communications Population Report Study Date: 7/25/01

KMEXTV (34Z) Los Angeles, CA
TV Incoming Interference Study Database: 2000 US Census
Signal Resolution: 1.25 km
Consider NTSC Taboo: Yes
KWX error points are considered to be interference free coverage.
# of radials computed for contours: 72
Contours calculated using 8 radial HAAT.
LR Profile Spacing Increment: 0.1 km
Interference considered within the reference station's 64 dBu FCC countour.
Using NTSC lptv/translators D/U rules.
Threshold for reception: 64.0

Percentages calculated using a baseline population of 13,716,099.

Stations considered which do not cause interference:
KSMV-LP (33-)

Call Letters	City	State	Dist	Bear
KSMV-LP (33-)	Simi Valley	CA	0.1	132.1

Totals for KMEXTV (34Z)

Calculation Area Population:	15,382,133	(31361.2	sq. km)
Not Affected by Terrain Loss:	13,716,099	(22485.9	sq. km)
Total NTSC Interference:	0	(0.0	sq. km)
DTV Only Interference:	0	(0.0	sq. km)
Total DTV Interference:	0	(0.0	sq. km)
Interfered Population:	0	(0.0	sq. km)
Interference Free:	13,716,099	(22485.9	sq. km)
Percent Interference:	0.00		
Terrain Blocked Population:	1,666,034	(8875.3	sq. km)

KMEX-TV CONSTRUCTION PERMIT VS. KSMV-LP DISPLACEMENT TO CHAN. 33
MOUNT WILSON, CA 82.5 kW ERP MAX. AND 12.5 kW ERP ON HORIZON

V-Soft Communications Population Report Study Date: 7/25/01

KMEXTV.C (34Z) Los Angeles, CA
TV Incoming Interference Study Database: 2000 US Census

Signal Resolution: 1.25 km
Consider NTSC Taboo: Yes
KWX error points are considered to be interference free coverage.
# of radials computed for contours: 72
Contours calculated using 8 radial HAAT.
LR Profile Spacing Increment: 0.1 km
Interference considered within the reference station's 64 dBu FCC countour.
Using NTSC lptv/translators D/U rules.
Threshold for reception: 63.684

Percentages calculated using a baseline population of 13,795,099.

Stations considered which do not cause interference:
KSMV-LP (33)

Call Letters	City	State	Dist	Bear
KSMV-LP (33)	Simi Valley	CA	0.2	124.5

Totals for KMEXTV.C (34Z)

Calculation Area Population:	15,778,133	(31587.6 sq. km)
Not Affected by Terrain Loss:	13,795,099	(22559.3 sq. km)
Total NTSC Interference:	0	(0.0 sq. km)
DTV Only Interference:	0	(0.0 sq. km)
Total DTV Interference:	0	(0.0 sq. km)
Interfered Population:	0	(0.0 sq. km)
Interference Free:	13,795,099	(22559.3 sq. km)
Percent Interference:	0.00	
Terrain Blocked Population:	1,983,034	(9028.3 sq. km)