



## **LOHNES AND CULVER**

CONSULTING RADIO ENGINEERS

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RONALD H. CULVER, P.E. (2001)  
ELIZABETH L. DAHLBERG, P.E. (1997)

January 18, 2010

Marlene H. Dortch, Secretary  
Federal Communications Commission  
Office of the Secretary  
445 12<sup>th</sup> Street, SW  
Washington, DC 20554

Re: Lotus TV of Houston, LLC  
Station KHLM-LD, Houston, Texas  
Facility ID Number 57189  
FRN: 0011339363

Dear Ms. Dortch:

This request is made on behalf Lotus TV of Houston, LLC, ("LOTUS"), licensee of digital LPTV station KHLM-LD Channel 43 Houston Texas. KHLM-LD originally began on-air broadcasting to the public as an analog station in March 1992. It initially transmitted on Channel 4 and was later switched to Channel 43 in February 1999 pursuant to the Commission's displacement relief provision. The station flash-cut to digital in June 2009 along with the full service stations adhering to the DTV Transition mandate. Although KHLM-LD was not required to follow the DTV mandate, LOTUS believed that the station should transition with the other full service stations in the market given its essential ethnic programming.

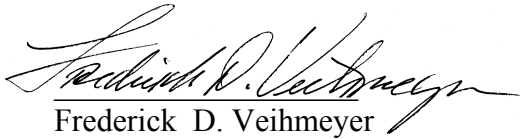
KHLM-LD had been successfully serving the Houston market as an analog station with a maximum ERP of 138 kW prior to flash-cutting to digital. Upon converting KHLM-LD to digital operation with the maximum allowable ERP of 15 kW, it was ultimately discovered thru complaints from viewers and advertisers that the station's new digital service is actually inferior to the old analog service at numerous locations throughout the coverage area. In fact in some cases it was observed by station personnel that indoor antennas previously used for analog reception were no longer suitable for receiving the station's digital signal. Since the difference in ERP between the current digital and former analog facilities may represent the cause of the reported deficiencies in viewable signals, LOTUS hereby requests experimental authority to evaluate the effect, if any, of operating KHLM-LD at a higher power while maintaining its regular operating schedule and sponsored programming.

LOTUS seeks to operate KHLM-LD at a maximum ERP of 60 kW for no less than the customary duration for experimentation of one year. The office of the undersigned has conducted interference studies with KHLM-LD operating with 60 kW ERP to determine the impact on existing and authorized full service DTV stations as well as on other digital and analog secondary TV operations. The studies were performed using software developed for the Commission to evaluate LPTV digital conversion proposals. These studies are based on the "Tech Box" parameters described in the Exhibit 1 attachment, and they indicate that the proposal will not exceed the Commission's normal interference protection criteria. An environmental statement regarding RF exposure compliance is also attached as Exhibit 2.

Attached as Exhibit 3 is a letter of certification regarding the Anti-Drug Abuse Act.

Should there be any questions, please contact the undersigned.

Lohnes and Culver



Frederick D. Veihmeyer

Enclosure

cc: Howard A. Kalmenson  
Hossein Hashemzadeh  
Jerome S. Boros

**EXHIBIT 1**  
**EXPERIMENTAL AUTHORIZATION**

**TECHNICAL SPECIFICATIONS**

Legal Name of the Applicant TEXAS LOTUS TV OF HOUSTON LLC		
Mailing Address 3301 BARHAM BOULEVARD, SUITE 200		
City LOS ANGELES	State or Country (if foreign address) CA	ZIP Code 90068
Telephone Number (include area code) 3235122225	E-Mail Address (if available)	
	Call Sign KHLM-LD	Facility ID Number 57189

**TECH BOX**

1. Channel Number: 43 Community of License: City HOUSTON State TX
2. Translator Input Channel No.: \_\_\_\_\_
3. Primary station proposed to be rebroadcast:  
Facility Identifier \_\_\_\_\_ Call Sign \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Channel \_\_\_\_\_
4. Antenna Location Coordinates: (NAD 27)  

<u>29</u> °	<u>33</u> '	<u>44</u> "	<input checked="" type="checkbox"/> N	<input type="checkbox"/> S	Latitude
<u>95</u> °	<u>30</u> '	<u>35</u> "	<input type="checkbox"/> E	<input checked="" type="checkbox"/> W	Longitude
5. AS R Number: 1059622 ☐ Not applicable ☐ Notification Filed with FAA
6. Antenna Location Site Elevation Above Mean Sea Level: 22.8 meters
7. Overall Tower Height Above Ground Level: 601.6 meters
8. Height of Radiation Center Above Ground Level: 433 meters
9. Maximum Effective Radiated Power (ERP): 60 kW
10. Transmitter Output Power: 4.43 kW
11. a. Transmitting Antenna:  

<input type="checkbox"/> Nondirectional	<input checked="" type="checkbox"/> Directional	<input type="checkbox"/> Directional composite
Manufacturer: <u>ERI</u> Model: <u>ALP24L3-CSMX-43</u>		
- b. Electrical Beam Tilt: 0.75 degrees ☐ Not Applicable

**TECH BOX**

c. Directional Antenna Relative Field Values:

☐ N/A (Nondirectional or Directional "Off-the-shelf")Rotation: 55 °☐ No rotation

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
0	1.000	60	0.723	120	0.328	180	0.322	240	0.328	300	0.723
10	0.989	70	0.667	130	0.247	190	0.306	250	0.413	310	0.785
20	0.956	80	0.612	140	0.200	200	0.262	260	0.489	320	0.848
30	0.907	90	0.554	150	0.214	210	0.214	270	0.554	330	0.907
40	0.848	100	0.489	160	0.262	220	0.200	280	0.612	340	0.956
50	0.785	110	0.413	170	0.306	230	0.247	290	0.667	350	0.989
Additional Azimuths											



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**EXHIBIT 2**  
**ENVIRONMENTAL STATEMENT**  
**KHLM-LD 60 kW ERP 437 m HAAT CH. 43**  
**HOUSTON, TEXAS**

Texas Lotus TV of Houston LLC (“Lotus”), the licensee of digital low power television station KHLM-LD, Houston, Texas (Fac. ID No. 57189) submits this request for experimental authority to operate KHLM-LD with facilities at variance from those authorized by the station’s license (File No. BLDTL-20090630AWZ). Lotus seeks to operate KHLM-LD at higher effective radiated power (ERP) than the FCC rules permit for digital UHF low power television and TV translator stations in order to evaluate certain reception issues. KHLM-LD currently operates on Channel 43 at the maximum permissible ERP of 15 kW. Lotus proposes to temporarily increase the station’s authorized power to 60 kW ERP for the purpose of experimentation.

An environmental assessment is not required in connection with this proposal. Specifically, this request for experimental authorization is categorically excluded from environmental processing by Section 1.1306 since the specified antenna structure is an existing tower that is registered with the FCC and the facility proposal is not predicted to exceed the rules regarding human exposure to radio-frequency (RF) energy in Section 1.1307(b).<sup>1</sup>

It is estimated that KHLM-LD operating with 60 kW ERP will result in a worst-case ground level exposure contribution of less than 2.0  $\mu\text{W}/\text{cm}^2$ .<sup>2</sup> This determination was made based on the unique Tech-Box parameters described in Figure 1 and

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<sup>1</sup> See 47 C.F.R. Part 1.1307, “*Actions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared.*” Paragraph (b) of that section excludes facilities, operations, or transmitters that are in compliance with the exposure limits in §§1.1310.

<sup>2</sup> See FCC OET Bulletin No. 65. (August 1997). Methods for predicting RF field strengths and power density levels around typical RF sources.



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assuming 0.3 relative field for UHF antenna type to be employed (i.e. in downward directions greater than 10° below the horizontal). Since the power density contribution at ground level is less than 5% of the MPE limits,<sup>3</sup> the applicant is not required to further evaluate the antenna location with respect to other RF sources.<sup>4</sup>

At elevations greater than 2 meters above ground (e.g. locations on the supporting tower) workers will be protected from excessive exposure to RF fields in accordance with the methods recommended in FCC-OET Bulletin No. 65. All maintenance and other related work involving exposure at elevations above ground level will be coordinated to effectively prevent access to RF fields exceeding the controlled exposure limit. Preventative steps to protect workers during such scheduled projects shall include reducing power or shutting down the facility.

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<sup>3</sup> See 47 C.F.R. Part 1.1310, “*Radiofrequency radiation exposure limits.*” The limits for maximum permissible exposure (“MPE”) for UHF Channel 43 are (A) 2,146.7  $\mu\text{W}/\text{cm}^2$  for occupational/controlled exposure and (B) 429.3  $\mu\text{W}/\text{cm}^2$  for general population/uncontrolled exposure.

<sup>4</sup> See 47 C.F.R. Part 1.1307(b)(3), Licenses whose transmitters produce power density levels in accessible areas that do not exceed 5% of their applicable exposure limit are not required to share responsibility for compliance in those areas.



## **LOTUS COMMUNICATIONS CORP.**

January 19, 2010

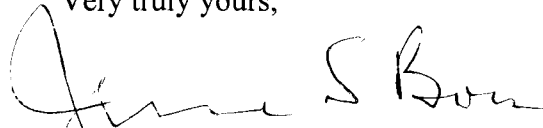
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Re: Lotus TV of Houston, LLC  
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Dear Ms. Dortch:

Lotus TV of Houston, LLC certifies that neither applicant nor any party to the application is subject to denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862.

Very truly yours,



JEROME S. BOROS  
General Counsel

JSB/lmc