EXHIBIT E

ENGINEERING STATEMENT
APPLICATION TO MODIFY THE OUTSTANDING
DTV CONSTRUCTION PERMIT FOR
AN EXISTING TELEVISION TRANSLATOR
(FCC FILE NO. BDFCDTA-20060630AHM)
K15AA-D, HUGO, OKLAHOMA
CHANNEL 15 7.56 KW ND ERP 282.1 METERS RC/AMSL

JANUARY 2010

COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

Donald G. Everist, being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer, a Registered Professional Engineer in the District of Columbia, and is President, Secretary and Treasurer of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

That his qualifications are a matter of record in the Federal Communications Commission;

That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.

Donald G. Everist
District of Columbia
Professional Engineer
Registration No. 5714

Subscribed and sworn to before me this 19th day of January, 2010.

Notary Public

My Commission Expires: 2/28/2013

INTRODUCTION

This engineering statement has been prepared on behalf of Oklahoma Educational Television Authority, licensee of TV translator K15AA, Hugo, Oklahoma. This statement supports the licensee's request to modify the outstanding construction permit, (FCC File No. BDFCDTA-20060630AHM, with its conversion to DTV operation on the currently authorized in-core Channel 15 with a reduced DTV effective radiated power ("ERP") from 15 kW to 7.56 kW at a radiation center above mean sea level ("RCAMSL") of 282.1. These facilities specify, due to economic reasons, the construction using a 2 kW transmitter in lieu of a larger transmitter.

TRANSMITTER SITE

The existing antenna has been utilized and the tower has not been significantly altered. The existing tower is located west of the city limits of Hugo, Oklahoma. The geographic coordinates of the site follow below.

North Latitude: 33° 59' 45"

West Longitude: 95° 30' 35"

NAD-27

ELEVATION DATA

Elevation of site above mean sea level	173.9 meters (570.5 feet)
Center of radiation of antenna above ground level	108.2 meters[1] (355 feet)

[1]Center of radiation above ground level derived from the current license (FCC File No. BLTT-19900215JC).

Center of radiation of antenna above mean sea level	282.1 meters (925.5 feet)
Overall height of tower above ground	109.7 meters (356 feet)

The Antenna Structure Registration Number ("ASRN") for the existing tower is 1053356.

EQUIPMENT DATA

Transmitter:	Type-approved
Transmission Line:	Andrew, Type HJ7-50A, 1-5/8", 111.3 meters (365 feet) with 67.6% efficiency [0.466 dB loss/100 ft]
Antenna:	Bogner, B4UO with a gain of 5.6 and 0° electrical beam tilt
Out-of-Channel Emission Mask:	Simple

POWER DATA

Transmitter:	2.00 kW	3.01 dBk
Transmission Line Loss:	67.6%	1.7 dB
Input Into Antenna:	1.35 kW	1.30 dBk
Antenna Gain:	5.6	7.48 dB
ERP:	7.56 kW	8.78 dBk

In the engineering statement entitled, “Engineering Statement, Application for a DTV Construction Permit for an Existing Television Translator K15AA, Hugo, Oklahoma, Channel 15, 15 kW ND ERP, 284 Meters RC/AMSL, June 2006”, the radiofrequency field level was calculated to be less than 59% of the 319 μW/cm² Maximum Permissible Exposure (“MPE”) limit for an uncontrolled environment two meters above ground in the vicinity of the site. The slight reduction in ERP will reduce the calculated value to approximately 95.3 μW/cm² or less than 30% of the MPE for an uncontrolled environment.

Section III - Engineering (Digital)

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: 15

2. Translator Input Channel No. via satellite

3. Station proposed to be rebroadcast: Facility ID: 50205

Call Sign	City	State	Channel
KETA-DT	Oklahoma City	Oklahoma	13

4. Antenna Location Coordinates: (NAD 27)

33 ° 59 ' 45 " [X] N [ ] S Latitude

95 ° 30 ' 35 " [ ] E [X] W Longitude

5. Antenna Structure Registration Number: 1053356

[ ] Not applicable [See Explanation in Exhibit No.] [ ] FAA Notification Filed with FAA

6. Antenna Location Site Elevation Above Mean Sea Level: 173.9 meters

7. Overall Tower Height Above Ground Level: 109.7 meters

8. Height of Radiation Center Above Ground Level: 108.2 meters

9. Maximum Effective Radiated Power (ERP): 7.56 kW

10. Transmitter Output Power: 2.0 kW

11. a. Transmitting Antenna: [X] Nondirectional [ ] Directional ("Off-the-Shelf") [ ] Directional composite

Manufacturer	Model
Bogner	B4UO

b. Electrical Beam Tilt: _____ degrees [X] Not applicable

c. Directional Antenna Relative Field Values:

Rotation: _____ ° ☐ No rotation ☒ N/A (Nondirectional) or Directional "Off-the-Shelf"

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.

12. **Out-of-Channel Emission Mask:** Simple X Stringent ☐

CERTIFICATION

13. **Interference.** The proposed facility complies with all of the following applicable rule sections. 47 C.F.R. Sections 74.709, 74.793(e), 74.793(f), 74.793(g), 74.793(h), 74.794(b) and 73.1030.

☒ Yes ☐ No — See Explanation in Exhibit No.

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. E

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.

15. **Channels 52-59.** If the proposed channel is within channels 52-59, the applicant certifies compliance with the following requirements, as applicable:

☐ The applicant is applying for a digital companion channel for which no suitable channel from channel 2-51 is available.

☐ Pursuant to Section 74.786(d), the applicant has notified, within 30 days of filing this application, all commercial wireless licensees of the spectrum comprising the proposed TV channel and the first adjacent channels thereto, for which the proposed digital LPTV or TV translator antenna site lies inside the licensed geographic boundaries of the wireless licensees or within 75 miles and 50 miles, respectively, of the geographic boundaries of co-channel and adjacent-channel wireless licensees.

PREPARER'S CERTIFICATION ON PAGE 8 MUST BE COMPLETED AND SIGNED.

16. **Channels 60-69.** If the proposed channel is within channels 60-69, the applicant certifies compliance with the following requirements, as applicable:

☐ Pursuant to Section 74.786(e), the applicant has notified, within 30 days of filing this application, all commercial wireless licensees of the spectrum comprising the proposed TV channel and the first adjacent channels thereto, for which the proposed digital LPTV or TV translator antenna site lies inside the licensed geographic boundaries of the wireless licensees or within 75 miles and 50 miles, respectively, of the geographic boundaries of co-channel and adjacent-channel wireless licensees,

☐ Pursuant to Section 74.786(e), the applicant proposing operation on channel 63, 64, 68 and 69 ("public safety channels") has secured a coordinated spectrum use agreement(s) with 700 MHz public safety regional planning committee(s) and state frequency administrator(s) of the region(s) and state(s) within which the antenna site of the digital LPTV or TV translator station is proposed to locate, and those adjoining regions and states with boundaries within 75 miles of the proposed station location.

☐ Pursuant to Section 74.786(e), an applicant for a channel adjacent to channel 63, 64, 68 or 69 has notified, within 30 days of filing this application, the 700 MHz public safety regional planning committee(s) and state administrator(s) of the region and state containing the proposed digital LPTV or TV translator antenna site and regions and states whose geographic boundaries lie within 50 miles of the proposed LPTV or TV translator antenna site.

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 Donald G. Everist		Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer
Signature		Date January 19, 2010
Mailing Address Cohen, Dippell and Everist, P.C., 1300 L Street, NW, Suite 1100		
City Washington	State or Country (if foreign address) DC	ZIP Code 20005
Telephone Number (include area code) (202) 898-0111	E-Mail Address (if available) cde@attglobal.net	

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).