**EXHIBIT E** 

ENGINEERING STATEMENT
APPLICATION FOR LICENSE TO COVER THE OUTSTANDING
DTV CONSTRUCTION PERMIT FOR
AN EXISTING TELEVISION TRANSLATOR
(FCC FILE NO. BMPDTT-20100202ABW)
K16AB-D, GUYMON, OKLAHOMA
CHANNEL 16 6.30 KW ND ERP 1109 METERS RC/AMSL

FEBRUARY 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. Everish

District of Columbia

Professional Engineer

Registration No. 5714

Subscribed and sworn to before me this 3

day of reduce

2010.

Notary Public

My Commission Expires:

### **INTRODUCTION**

This engineering statement has been prepared on behalf of Oklahoma Educational Television Authority, licensee of TV translator K16AB, Guymon, Oklahoma. This statement supports the licensee's request for license to convert to DTV operation on the currently licensed analog Channel 16, commonly referred to as "flash-cut" with an authorized DTV effective radiated power ("ERP") of 6.30 kW at a radiation center above mean sea level ("RCAMSL") of 1109 meters as authorized by the outstanding construction permit (FCC File No. BMPDTT-20100202ABW). These facilities specify due to economic reasons the construction using a 1 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 at 9<sup>th</sup> & Ellison Sreets in Guymon, Oklahoma. The geographic coordinates of the site follow below.

North Latitude: 36° 40' 13" West Longitude: 101° 28' 48" NAD-27

#### **ELEVATION DATA**

| Elevation of site above mean sea level              | 950 meters (3116.8 feet)             |
|---|--------------------------------------|
| Center of radiation of antenna above ground level   | 159 meters <sup>1</sup> (521.7 feet) |
| Center of radiation of antenna above mean sea level | 1109 meters (3638.5 feet)            |
| Overall height of tower above ground                | 159.2 meters (522.3 feet)            |

<sup>&</sup>lt;sup>1</sup>Center of radiation above ground level derived from the current license (FCC File No. BLTT-19790307ID).

The Antenna Structure Registration Number ("ASRN") for the existing tower is 1011306.

## **EQUIPMENT DATA**

Transmitter: Type-approved

Transmission Line: Andrew, Type HJ7-50A, 1-5/8", 164.6 meters

(540 feet) with 55.8% efficiency

[0.469 dB loss/100 ft]

Antenna: Bogner, B8UO with a gain of 11.3 and 0°

electrical beamtilt

Out-of-Channel

**Emission Mask:** 

Simple

## **POWER DATA**

| Transmitter:            | 1.00 kW  | 0.00 dBk  |
|-------------------------|----------|-----------|
| Transmission Line Loss: | 55.8%    | 2.53 dB   |
| Input Into Antenna:     | 0.558 kW | -2.53 dBk |
| Antenna Gain:           | 11.3     | 10.53 dB  |
| ERP:                    | 6.30 kW  | 7.99 dBk  |

# **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:  |             |                                |  |  |
|--|---|-------------|--------------------------------|--|--|
| 2.   | Frequency Offset  |             |                                |  |  |
|  | No offset Zero offset Plus offset   | Minus offs  | et                             |  |  |
| 3.   | Antenna Location Coordinates: (NAD 27)  O   |             |                                |  |  |
| 4.   | Maximum Effective Radiated Power (ERP) Toward Radio Horizon: kW   |             |                                |  |  |
| 5.   | Maximum ERP in any horizontal and vertical angle: kW  |             |                                |  |  |
| 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 |   |             |                                |  |  |
| All  | applicants must complete this section.  |             |                                |  |  |
| 6.   | Constructed Facility. The facility was constructed as authorized in the underlying construction permit.   | Yes No      | See Explanation in Exhibit No. |  |  |
| 7.   | <b>Special Operating Conditions.</b> The facility was constructed in compliance with all special operating conditions, terms, and obligations described in the construction permit. | Yes No      | See Explanation in Exhibit No. |  |  |
|  |   | Exhibit No. |                                |  |  |

PREPARER'S CERTIFICATION ON PAGE 4 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 Donald G. Everist  | Relationship to Applicant (e.g., Consulting Engineer | Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer |  |  |  |
|---|--|---|--|--|--|
| Signature Hard Chille   | Date February 25, 2010                               |   |  |  |  |
| Mailing Address Cohen, Dippell and Everist, P.C., 1300 L Street, NW, Suite 1100 |  |   |  |  |  |
| City<br>Washington  | State or Country (if foreign address) DC             | ZIP Code<br>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).