



**STATEMENT OF JOHN E. HIDLE, P.E.
IN SUPPORT OF AN APPLICATION TO AMEND
A PENDING APPLICATION FOR
CONSTRUCTION PERMIT - BMPCDT-20040524AOI
KDEN-DT- LONGMONT, COLORADO
DTV - CH. 29 - 650 kW - 357.5 M HAAT**

Prepared for: Longmont Channel 25, Inc.

I am a Consulting Engineer, an employee in the firm of Carl T. Jones Corporation, with offices located in Springfield, Virginia. My education and experience are a matter of record with the Federal Communications Commission. I am a registered Professional Engineer in the Commonwealth of Virginia, Registration No. 7418, and in the State of New York, Registration No. 63418.

GENERAL

This office has been authorized by Longmont Channel 25, Inc., permittee of KDEN-DT, channel 29, Longmont, Colorado, BPCDT-19991018AAS, to prepare this statement, FCC Form 301, Sections III and III-D, and the associated exhibits in support of this application to amend its pending application for modification of construction permit, BMPCDT-20040524AOI, to decrease the Effective Radiated Power (ERP) and decrease the antenna centerline Height Above Average Terrain (HAAT).

The permittee, in its pending application, proposes to relocate the KDEN-DT transmission facility to a new tower support structure to be constructed on a site located at a distance of approximately 490 meters in a direction approximately 51 degrees True. The geographic coordinates of the proposed tower are: 40°05' 57" North latitude, 104°53'

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48" West longitude, North American Datum 1927. The Federal Aviation Administration (FAA) has issued a determination of no hazard, 2004-ANM-47-OE, for a height above mean sea level of 1,904.7 meters, which is lower than that specified in the pending application for modification of construction permit. The permittee has already registered the proposed structure, at the FAA approved height of 1904.7 meters AMSL with the Commission, registration number 1245921. The permittee therefore herein proposes to reduce the antenna centerline HAAT from 515.8 meters, as currently proposed in the pending application, to 357.5 meters, to bring the pending application into compliance with the FAA's determination, and the FCC tower registration data.

The permittee also proposes to decrease the ERP to 650 kW without causing impermissible interference to any other relevant broadcast facility. No other changes are herein proposed.

PROPOSED DIRECTIONAL ANTENNA

See Comprehensive technical document dated May 19, 2004 for antenna data and other information for which the instant proposal requests no changes.

PREDICTED COVERAGE CONTOURS

The predicted coverage contours were calculated in accordance with Section 73.625 using the method described in Section 73.684 of the Rules. The appropriate F(50,90) propagation curves (47 CFR Section 73.699, Figure 9), power, and antenna height above average terrain were used, as determined for each profile radial. The average terrain on

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the eight cardinal radials from 3 kilometers to 16 kilometers from the site, was determined using the National Geophysical Data Center Thirty Second Point Database (TPG-0050) as prescribed in the FCC Rules. The predicted principal community (48 dBu) service contour completely encompasses Longmont, Colorado, the principal community of license, shown in exhibit 1, in compliance with Section 73.625(a) of the Commission's rules. The predicted 41 dBu noise limited service contour is also shown in exhibit 1.

ALLOCATION CONSIDERATIONS

NTSC Allocation Considerations

An interference study was performed, using the Commission's application analysis program, tv_process, to ensure that the proposed DTV facility, as modified herein, remains in compliance with the Commission's *de minimis* interference requirement contained in Section 73.623(c)(2) of the Commission's rules. The study showed that the DTV facility proposed herein is predicted to cause no increase in the interference population in excess of the Commission's *de minimis* criteria to any authorized NTSC television facility, or relevant pending application.

DTV Allocation Considerations

A second study was performed, using tv_process with the study parameters set to a finer resolution, 1 km cells and 0.5 km terrain point resolution, as allowed by Commission policy. That study was evaluated to determine changes in ERP and HAAT proposed herein would be predicted to cause any level of new prohibited interference to other authorized DTV facilities, including other authorized DTV stations, DTV expansion

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construction permits, DTV allotments (including checklist CPs), or pending DTV applications. Since the Commission staff have ruled that the DTV construction permit for KGWN-DT, channel 30, Cheyenne, Wyoming is not a “checklist” CP the study was evaluated in light of the effect the instant proposal might have on that CP. KGWN-DT’s baseline population, according to Appendix B in the Second MO&O on Recon, is 359,000 persons. The study contained one scenario in which the “before analysis” interference free population is shown to be 327,374 persons, or 91.2% of the relevant baseline population. The “after analysis” interference population is shown to be 325,416 persons, or 90.6% of the baseline population. The instant proposal is predicted to reduce the interference free population of KGWN-DT by 0.6%, and does not reduce the interference free population below 90% of the stations baseline. The instant proposal is predicted to cause no unacceptable level of new interference to the populations served by any other relevant DTV facility, and thereby is in compliance with the 2% and 10% *de minimis* interference criteria contained in Section 73.623(c)(2) of the Commission’s Rules. No interference agreements or waivers are therefore necessary.

Class A Television Allocation Considerations

As required in Section 73.623(c)(5) of the FCC’s Rules, a study of interference contour overlap was performed to establish compliance with the protection requirements specified therein. The study shows that there are no class A LPTV stations potentially affected by the instant proposal to modify the subject construction permit.

Table Mountain Radio Receiving Zone

Section 73.1030(b) of the Commission's Rules requires all applicants to protect the area therein designated from potentially harmful interference. The modifications proposed herein were evaluated to determine compliance with those requirements. The predicted signal strength from any proposed facility operating in the 470 MHz to 890 MHz band should not exceed a field value of 30 millivolts per meter within its authorized bandwidth. As shown in exhibit 7, in the technical document dated May 19, 2004, the Table Mountain Radio Receiving Zone is located entirely outside the predicted KDEN-DT 30 mV/m (89.5 dBu) signal strength contour. The proposed reduction in facilities will relocate the 30 mV/m contour further from the Zone.

Largest Station in the Market

See technical document dated May 19, 2004.

BLANKETING AND INTERMODULATION INTERFERENCE

A number of both broadcast and non-broadcast facilities are located within 10 km of KDEN-DT's proposed site. The permittee recognizes its responsibility to investigate and remedy complaints of interference which might be created by this proposal in accordance with applicable Rules.

ENVIRONMENTAL CONSIDERATIONS

RADIO FREQUENCY IMPACT

Effective October 15, 1997, the FCC adopted new guidelines and procedures for evaluating environmental effects of radio frequency (RF) emissions. The guidelines are

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generally based on recommendations by the National Council on Radiation Protection and Measurements (NCRP) in NCRP Report No. 86 (1986), and by the American National Standards Institute and the Institute of Electrical and Electronic Engineers, LLC (IEEE) in ANSI/IEEE C95.1-1992 (IEEE C95.1-1991). The guidelines provide a maximum permissible exposure (MPE) level for occupational or "controlled" situations that apply in cases that affect the general public. The FCC Office of Engineering and Technology's technical bulletin No. 65 entitled, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields" (Edition 97-01, August 1997), provides assistance in the determination of whether FCC-regulated transmitting facilities, operations or devices comply with guideline limits for human exposure to radio frequency electromagnetic fields as adopted by the Commission in 1996. Bulletin No. 65 contains the technical information necessary to evaluate compliance with the FCC's policies and guidelines.

The Commission's Maximum Permitted Exposure (MPE) level for "uncontrolled" environments is 0.2 milliwatts per centimeter squared (mW/cm^2) when applied to broadcast facilities operating between 30 MHz and 300 MHz, and for broadcast facilities operating between 300 MHz and 1500 MHz, primarily UHF TV stations, is derived from the formula, $(\text{frequency}/1500)$. The MPE level for "controlled" environments is 1.0 milliwatts per centimeter squared (mW/cm^2) for operations between 30 MHz and 300 MHz, and for broadcast stations operating between 300 MHz and 1500 MHz is derived from the formula, $(\text{frequency}/300)$. The predicted emissions of KDEN-DT, channel 29, must be considered,

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along with the predicted emissions from other proposed and existing stations at the current site. For KDEN-DT, which will operate on television Channel 29 (560-566 MHz), the MPE is 0.375 milliwatts per centimeter squared (mW/cm^2) in an "uncontrolled" environment and 1.875 mW/cm^2 in a "controlled" environment. The proposed KDEN-DT facility will operate with a maximum ERP of 650 kW from a horizontally polarized directional transmitting antenna with a centerline height of 329.7 meters above ground level (AGL). Considering the relevant conservative vertical plane relative field factor of 0.3, the KDEN-DT facility is predicted to produce a power density at two meters above ground level of 0.01819 mW/cm^2 , which is 4.85% of the FCC guideline value for "uncontrolled" environments, and 0.97% of the FCC guideline value for "controlled" environments (see Appendix A). The total percentage of the ANSI value at the proposed site, considering the cumulative radiation of all stations to be located at the subject site is only 12.42% of the guideline's limit for "uncontrolled" environments, and 2.48% of the limit for "controlled" environments.

OCCUPATIONAL SAFETY

The permittee of KDEN-DT is committed to the protection of station personnel and/or tower contractors working in the vicinity of the antenna. The permittee is committed to reducing power and/or ceasing operation during times of service or maintenance of the transmission systems, when necessary, to ensure protection to personnel. In light of the above, the proposed facility should be categorically excluded from RF environmental processing under Section 1.1307(b) of the Commission's Rules.

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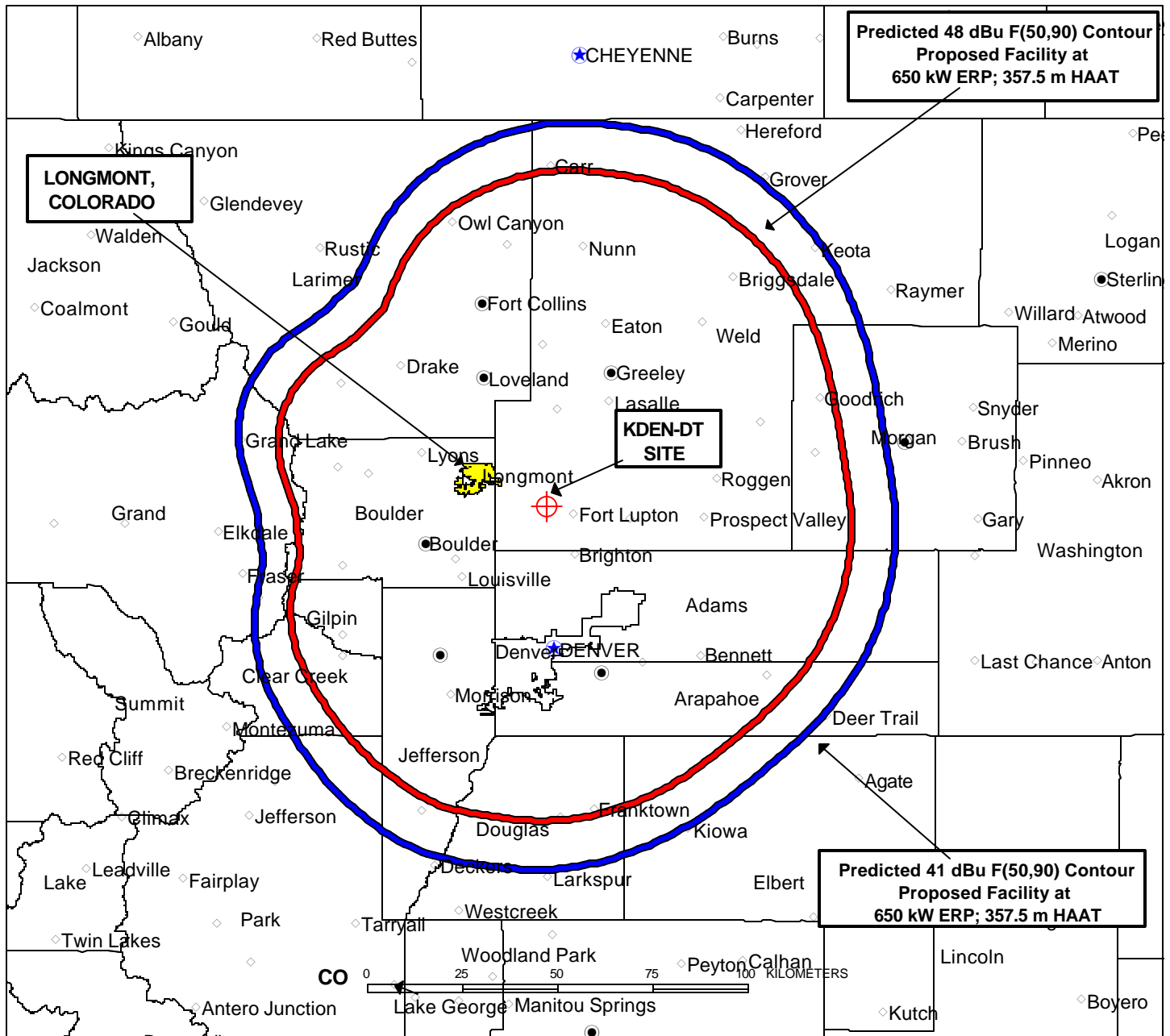
SUMMARY

It is submitted that the instant proposal to amend its pending application for modification of construction permit, BMPCDT-20040524AOI, as described herein, complies with the Rules, Regulations and Policies of the Federal Communications Commission. This statement, FCC Form 301, and the attached exhibits were prepared by me or under my direct supervision and are believed to be true and correct to the best of my knowledge and belief.

DATED: November 4, 2004



John E. Hidle, P.E.






PREDICTED COVERAGE CONTOURS

KDEN-DT, LONGMONT, COLORADO
650 kW ERP; 357.5 m HAAT; DIRECTIONAL
NOVEMBER, 2004

 **KDEN-DT Proposed Facility**
Predicted 48 dBu F(50,90) Contour
650 kW ERP; 357.5 m HAAT; Directional Antenna

 **KDEN-DT Proposed Facility**
Predicted 41 dBu F(50,90) Contour
650 kW ERP; 357.5 m HAAT; Directional Antenna

CARL T. JONES
CORPORATION

**SUMMARY OF RADIOFREQUENCY
RADIATION STUDY**
KDEN-DT, LONGMONT, COLORADO
CHANNEL 29, 650 kW ERP, 357.5 m HAAT
Nov-04

<u>CALL</u>	<u>SERVICE</u>	<u>CHANNEL</u>	<u>FREQUENCY</u>	<u>POLARIZATION</u>	<u>ANTENNA HEIGHT ** mAGL</u>	<u>ERP (kW)</u>	<u>VERT. RELATIVE FIELD FACTOR</u>	<u>PREDICTED POWER DENSITY (mW/cm²)</u>	<u>FCC UNCONTROLLED LIMIT (mW/cm²)</u>	<u>PERCENT OF UNCONTROLLED LIMIT</u>
KDEN-DT	DT	29	563	H	327.7	650.000	0.300	0.01819	0.375	4.85%
KDEN(TV)	TV	25	539	H	348.6	2200.000	0.300	0.02722	0.359	7.57%
TOTAL PERCENTAGE OF ANSI VALUE=										12.42%

*** The antenna heights indicated above are 2 meters less than the actual antenna heights so that the predicted power densities consider the 2 meter human height allowance.*