Consulting Engineers
CTJC
CARL T. JONES CORPORATION

**STATEMENT OF JOHN E. HIDLE, P.E.**
**IN SUPPORT OF AN APPLICATION FOR**
**A CONSTRUCTION PERMIT FOR AN**
**AUXILIARY BROADCAST FACILITY FOR**
**KMEG - SIOUX CITY, IOWA**
**DTV - CH. 32 - 525 kW - 515 m HAAT**

Prepared for: WAITT BROADCASTING, 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 Licensed Professional Engineer in the Commonwealth of Virginia, No. 7418, and in New York State, No. 63418.

## GENERAL

This office has been authorized by WAITT BROADCASTING, INC., licensee of KMEG, channel 32, licensed to Sioux City, Iowa, to prepare this statement, FCC Form 2100, Schedule A, its technical sections, and the associated exhibits in support of an application for a construction permit for an auxiliary digital broadcast facility to supplement its licensed facility, file number 0000064025.

## DIRECTIONAL ANTENNA

The applicant proposes to re-purpose an existing Dielectric model TFU-24WB/VP-R C160 elliptically polarized directional transmitting antenna which was previously used for STA purposes during the repack transition. The antenna's center of radiation is located at a height above ground of 500.5 meters, and a height above average terrain of 525 meters.

The antenna's horizontal azimuth radiation patterns for both its horizontally and vertically polarized components and its vertical elevation pattern, showing its radiation characteristics above and below the horizontal plane are shown and tabulated in the antenna exhibit.

## PREDICTED COVERAGE CONTOURS

The predicted coverage contours for both the main licensed and proposed auxiliary facilities were calculated in accordance with the method described in Section 73.625(b) of the Rules, utilizing the appropriate F(50,90) propagation curves (47 CFR Section 73.699, Figure 9), proposed Effective Radiated Power, and antenna height above average terrain as determined for each profile radial. The average terrain on the eight cardinal radials from 3 kilometers to 16 kilometers from the site, was determined using the NED Three Second US Terrain Database as permitted in the FCC Rules. The antenna site elevation and coordinates were determined from FCC antenna registration data. Exhibit 1 shows the predicted Noise Limited (40.51 dBu) contours for both the licensed main facility and the proposed auxiliary facility and demonstrates that the auxiliary contour resides wholly within the licensed contour, as required by the Commission's Rules. The Principal Community (48 dBu) contour of the auxiliary facility also completely encompasses Sioux City, Iowa.

## BLANKETING AND INTERMODULATION INTERFERENCE

Other broadcast and non-broadcast facilities are either co-located with, or located within 10 km of the proposed KMEG site. The applicant does recognize its responsibility to remedy complaints of interference that might result from this proposal in accordance with applicable Rules.

## RADIO FREQUENCY IMPACT, SAFETY & STATEMENT OF COMPLIANCE

The licensee of KMEG is committed to the protection of station personnel and/or tower contractors working in the vicinity of the KMEG antenna and will reduce power or cease operation, when necessary, to ensure protection to personnel.

As shown in Appendix A the proposed KMEG channel 32 auxiliary facility, as proposed herein, will operate with a maximum ERP of 525 kW from an elliptically polarized directional transmitting antenna with a centerline height of 500.5 meters above ground level (AGL). Considering the elevation pattern provided elsewhere in this submission, the vertical plane relative field factor is less than 0.200 at all depression angles greater than 8 degrees. The proposed KMEG channel 32 auxiliary facility is predicted to produce a worst-case power density at two meters above ground level, at 418.3 meters from the tower base, of 0.627 $\mu W/cm^2$, which is 0.16% of the FCC guideline value of 387.33 $\mu W/cm^2$ for an “uncontrolled” environment, and 0.032% of the FCC’s guideline value for "controlled" environments. Therefore, pursuant to Section 1.1307(b)(3) of the FCC Rules, because the proposed facility would not exceed 5% of the uncontrolled and controlled exposure limits, the proposal’s power density contribution is considered insignificant. Further, the Applicant will continue to cooperate/coordinate with other site users and reduce power and/or cease operation during times of service or maintenance of the transmission systems as necessary to avoid potentially harmful exposure 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.

## SUMMARY

It is submitted that the instant application for a construction permit to provide an auxiliary DTV facility for KMEG, as described herein, complies with the Rules, Regulations and relevant Policies of the Federal Communications Commission. This statement, FCC Form 2100, its technical sections, 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: August 9, 2021