STATEMENT OF JOHN E. HIDLE, P.E.
IN SUPPORT OF AN APPLICATION FOR
POST REPACK CONSTRUCTION PERMIT
KFDM - BEAUMONT, TEXAS
DTV - CH. 15 - 277 kW - 275 m HAAT

Prepared for: KFDM Licensee, LLC

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, License No. 7418, and in the State of New York, License No. 63418.

GENERAL

This office has been authorized by KFDM Licensee, LLC, licensee of KFDM, channel 25, licensed to Beaumont, Texas, to prepare this statement, FCC Form 2100, Schedule A, its technical sections, and the associated exhibits in support of an application for construction permit, in accordance with the Incentive Auction Closing and Channel Reassignment Public Notice, DA 17-314, and the technical information provided in the confidential reassignment letter from the FCC announcing the substitution of DTV channel 15 for DTV channel 25 to be used by KFDM for its post-reassignment broadcasting.

NON-DIRECTIONAL ANTENNA

The applicant proposes to install a new Dielectric model TFU-24GTH/VP-R O4 elliptically polarized omni-directional transmitting antenna with its center of radiation located at a height above ground of 274 meters, and a height above average terrain of 275 meters. The antenna manufacturer's horizontal plane azimuth radiation pattern for the vertically polarized component is shown and tabulated in exhibit 2. The manufacturer's vertical plane elevation radiation pattern, illustrating the antenna's radiation characteristics above and below the horizontal plane is shown and tabulated in Exhibit 3.

PREDICTED COVERAGE CONTOURS

The predicted coverage contours 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 (38.83 dBu) contour, and the principal community (48 dBu) contour. The 48 dBu contour completely encompasses the principal community of license, Beaumont, Texas.

ALLOCATION CONSIDERATIONS

Post-Transition DTV Considerations

A study was performed, using the FCC's software, tv_study, v. 2.2.1, to determine if the instant application for construction permit is predicted to cause new prohibited interference to post reassignment DTV stations, construction permits, DTV allotments or Class A DTV stations. Results indicate that the instant application for construction permit is predicted to cause no new interference exceeding 0.5% to the populations served by any post reassignment DTV station, construction permit, allotment or Class A DTV station.

International DTV Considerations

The KFDM site is located 545.6 kilometers from the nearest point on the US-Mexican border, therefore no coordination with Mexico is necessary.

BLANKETING AND INTERMODULATION INTERFERENCE

Other broadcast and non-broadcast facilities are either co-located with, or located within 10 km of the proposed KFDM 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

The FCC's guidelines and procedures for evaluating environmental effects of radio frequency (RF) emissions are 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 define a maximum permissible exposure (MPE) level for occupational or "controlled" situations, and for "uncontrolled" environments that apply in all other cases that might 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 to determine whether FCC-regulated transmitting facilities, operations or devices comply with guidelines for human exposure to radio frequency electromagnetic fields as adopted by the Commission in 1996. OET Bulletin No. 65 contains the technical information necessary to evaluate compliance with the FCC's policies and guidelines.

The Maximum Permitted Exposure (MPE) level for broadcast facilities that operate on a frequency between 30 MHZ and 300 MHZ is 0.2 milliwatts per centimeter squared (mW/cm^2) for an "uncontrolled" environment, and is 1.0 milliwatts per centimeter squared (mW/cm^2) for a "controlled" environment. The MPE level for broadcast facilities that operate on a frequency between 300 MHZ and 1500 MHZ, primarily UHF TV stations, is determined for an "uncontrolled" environment by dividing the operating frequency in MHz by 1500, and is similarly determined for a "controlled" environment by dividing the operating frequency in MHZ by 300.

The predicted emissions of KFDM must be considered, in addition to predicted emissions from any other proposed or existing stations at the site. For KFDM, which will operate on television Channel 15 (476-482 MHZ), the MPE is 0.319 milliwatts per centimeter squared (mW/cm^2) in an "uncontrolled" environment and 1.597 mW/cm^2 in a

"controlled" environment. The proposed KFDM facility will operate with a maximum ERP of 277 kW from an elliptically polarized omni-directional transmitting antenna with a centerline height of 274 meters above ground level (AGL). Considering a very conservative vertical plane relative field factor of 0.300, the KFDM facility is predicted to produce a power density at two meters above ground level of 0.02251 mW/cm^2, which is 7.05% of the FCC guideline value for an "uncontrolled" environment, and 1.41% of the FCC's guideline value for "controlled" environments. (See Appendix A). There are three digital translator construction permits, KUMJ-LD, K24KQ-D and K34LK-D, that are located within the relevant proximity of 315 meters. The total percentage of the ANSI value at the proposed site, including the cumulative radiation from all authorizations within the relevant proximity is 7.70% of the limit applicable to "uncontrolled" environments, and 1.54% of the limit for "controlled" environments. (See Appendix A)

OCCUPATIONAL SAFETY

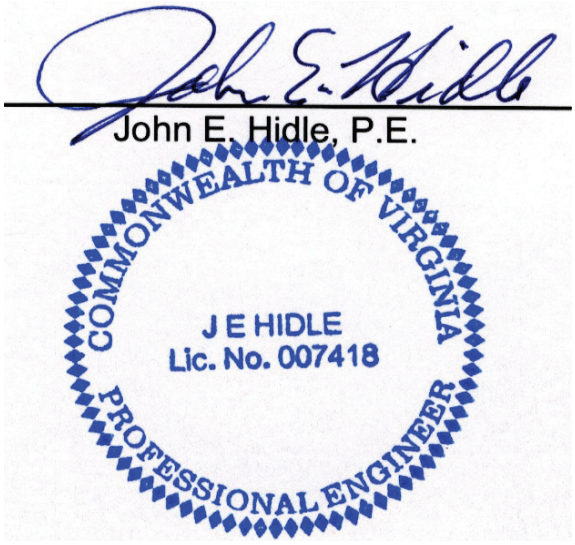
The licensee of KFDM is committed to the protection of station personnel and/or tower contractors working in the vicinity of the KFDM antenna, and is committed to reducing power or ceasing operation during times of maintenance of the transmission systems, when necessary, to ensure protection to personnel.

SUMMARY

It is submitted that the instant application for construction permit to change KFDM from channel 25 to channel 15, 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: May 11, 2017



APPENDIX A

SUMMARY OF RADIOFREQUENCY
RADIATION STUDY
KFDM, Beaumont, Texas
CHANNEL 15, 277 kW ERP, 275 m HAAT
MAY, 2017

CALL	SERVICE	CHANNEL	FREQUENCY	POLARIZATION	ANTENNA HEIGHT ** mAGL	ERP (kW)	VERT. RELATIVE FIELD FACTOR	PREDICTED POWER DENSITY (mW/cm^2)	FCC UNCONTROLLED LIMIT (mW/cm^2)	PERCENT OF UNCONTROLLED LIMIT
KUMJ-LD	DT	23	527	H	98	3.000	0.300	0.00094	0.351	0.27%
K24KQ-D	DT	24	533	H	226.6	15.000	0.300	0.00088	0.355	0.25%
KFDM	DT	15	479	H & V	272	277.000	0.300	0.02251	0.319	7.05%
K34LK-D	DT	34	593	H	13	0.030	0.300	0.00053	0.395	0.13%
								TOTAL PERCENTAGE OF ANSI VALUE=		7.70%

*** 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.
This evaluation includes facilities collocated at the site, and facilities located within 315 meters.

Consulting Engineers
CTJC
CARL T. JONES CORPORATION