

Engineering Statement
CBS Stations Group of Texas LLC
KTVT(TV) Ft. Worth, Texas
Facility ID 23422
Ch. 19 1000 kW 535.4 m

CBS Stations Group of Texas LLC (Paramount) has completed replacing the non-directional KTVT main antenna pursuant to 73.1690(c)(1). This Statement provides slight height corrections and demonstrates compliance with the FCC's radio frequency exposure guidelines.

Slight height elevations were discovered while preparing for this project. Therefore, tower owner American Towers, LLC requested an FAA aeronautical study that adjusted both ground elevation and structure height. Upon FAA approval, the FCC Antenna Structure Registration was modified.¹ As the adjustment to the KTVT antenna height does not exceed two-meters, the as-built facility complies with §73.1690(c)(1).

The corrected heights are:

- Antenna Center Height Above Ground: 490.7 m
- Antenna Height Above Average Terrain: 535.4 m
- Antenna Height Above Sea Level: 738.5 m
- Overall Structure Height Above Ground: 500.2 m

The proposed elliptically polarized antenna has a horizontally polarized ERP of 1,000 kW and a vertically polarized ERP of 300 kilowatts. According to the manufacturer, the proposed antenna relative field elevation pattern is 10 percent or less from 20 to 90 degrees below the horizon. Thus, a relative field value of 10 percent is used for this calculation.

The proposed operation was evaluated for human exposure to radiofrequency energy using equation ten (10) from the Commission's OET Bulletin No. 65. Calculations show that the proposed facility would contribute a power density of $1.8 \mu\text{W}/\text{cm}^2$ at two meters above ground level near antenna support structure, or 0.5 percent of the FCC's $335.3 \mu\text{W}/\text{cm}^2$ "uncontrolled/general population" exposure limit for UHF Channel 19 (503 MHz). RF power

¹ Please see FAA study 2022-ASW-13327-OE and FCC ASR 1059733.

Dielectric Primary Transmission Line Invoices Statement
Television Station KTXA Inc.

density is expected to be even lower at ground level locations away from the base of the tower, due to the increasing distance from the transmitting antenna.

According to §1.1307(b)(3), facilities at locations with multiple emitters are categorically excluded from responsibility for taking corrective action in areas where their contribution is less than five percent of the limit. Since the calculated exposure is less than five percent at all ground level areas, the impact of other possible contributors should not be a factor.

Tower access will continue to be controlled and appropriate RF exposure warning signs will continue to be posted. A site exposure policy is in effect that includes restriction of access, power reduction, or the complete shutdown of facilities when work must be performed where predicted RF levels would otherwise exceed appropriate guidelines. On-site RF exposure measurements may also be undertaken to establish the bounds of safe working areas. The applicant will coordinate exposure procedures with all pertinent stations.