

TECHNICAL SUMMARY
SECOND FILING WINDOW
APPLICATION FOR CONSTRUCTION PERMIT
TV STATION KSTR-DT
IRVING, TEXAS
CHANNEL 34 1000 KW (DA) 535 m

1. The instant application is a second filing window application for KSTR-DT on channel 34 at Irving, Texas. It is proposed to increase the ERP from 850 kW to 1000 kW, change the directional antenna system and increase the RCAMSL from 722.7 meters to 738.4 meters. There will be no other changes including no change in the overall structure height of the existing tower (ASRN 1059733).

2. Section 73.622(f)(5) Compliance: It is proposed operate on channel 34 with a directional antenna maximum ERP of 1000 kW and an HAAT of 535 meters. These facilities exceed the nominal maximum facilities specified in Section 73.622(f)(8)(i). However, the proposed facilities have been calculated in accordance with the largest station provision of Section 73.622(f)(5). Irving is located in the Dallas-Fort Worth, Texas market and the largest station in this market is WFAA on channel 8 (FCC File No. BLCDT-20110110AAH) which is licensed to provide noise-limited 36 dBu, f(50,90) service to an area of 46,670 square kilometers whereas the proposed KSTR-DT operation is predicted to provide noise-limited 41 dBu, f(50,90) service to an area of 37,060 square kilometers (see Figure 2 attached). Clarification of the largest station provision is provided in the Report and Order and Further Notice of Proposed Rule Making in MM Docket No. 00-39 at paragraphs 73-74.

3. As demonstrated in the *TVStudy* analysis exhibit, the proposal complies with the FCC's interference protection requirements based on a cell size of 2.0 km and profile resolution of 0.2 points/km.

4. RFR Compliance: The proposed facilities were evaluated in terms of potential radiofrequency radiation (RFR) exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna will be located 490.3 meters above ground level. The total DTV ERP is 1300 kW (1000 kW horizontal polarization, 300 kW vertical polarization). A conservative vertical plane relative field value of 0.10 is presumed for the antenna's downward radiation (for angles below 60 degrees downward, see attached antenna data). The calculated power density at a point 2 meters above ground level is 1.82

$\mu\text{W}/\text{cm}^2$ which is 0.5% of the FCC's recommended limit of $395.3 \mu\text{W}/\text{cm}^2$ for channel 34 for an uncontrolled environment. Therefore, based on the responsibility threshold of 5%, the proposal will comply with the RF emission rules.

Access to the transmitting site is restricted and appropriately marked with RFR warning signs. Also, as this is a multi-user site, a formal RFR protection protocol is in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measure will be taken to assure worker safety with respect to RFR exposure. Such measures include limiting the exposure time, wearing protective clothing, reducing power to an acceptable level or termination of transmitter output power all together until workers leave the restricted area.