

TECHNICAL SUMMARY  
APPLICATION FOR CONSTRUCTION PERMIT  
TV STATION KAIT  
JONESBORO, ARKANSAS  
CHANNEL 8 43.5 KW (ND) 530 m

1. The instant application for KAIT on channel 8 at Jonesboro, Arkansas is filed in response to the FCC's Public Notice which temporarily lifted the freeze on the filing of minor modification applications that expand the contour or full power and Class A TV stations.<sup>1</sup> It is proposed to increase the ERP from 28.2 kW to 43.5 kW. There will be no change in the overall structure height of the existing tower (ASRN 1064518).

2. 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 0.5 points/km.

3. 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 530 meters above ground level. The total DTV ERP is 43.5 kW (horizontal polarization). A worst-case vertical plane relative field value of 1.0 is presumed for the antenna's downward radiation (for angles below 60 degrees downward). The calculated power density at a point 2 meters above ground level is  $5.2 \text{ uW/cm}^2$  which is 0.55% of the FCC's recommended limit of  $200 \text{ uW/cm}^2$  for channel 8 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, 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

---

<sup>1</sup> *Media Bureau Temporarily Lifts the Freeze on the Filing of Minor Modification Applications That Expand the Contour of Full Power and Class A Television Stations from November 28 Through December 7, 2017*, Public Notice, DA 17-1086 (released November 6, 2017).

acceptable level or termination of transmitter output power all together until workers leave the restricted area.