

TECHNICAL SUMMARY
APPLICATION FOR MODIFICATION OF CONSTRUCTION PERMIT
FILE NO. 0000195582
TV STATION KKAC
CARLSBAD, NEW MEXICO
CHANNEL 19 80 KW (ND) 335 m

1. *Purpose of Application:* It is proposed to modify KKAC's outstanding construction permit (File No. 0000195582) to change transmitter site and modify facilities. Specifically, it is proposed to relocate to ASRN 1052108 and operate with a nondirectional antenna maximum ERP of 80 kW, an RCAGL of 276 meters, an RCAMSL of 1407.1 meters and an HAAT of 335 meters. There will be no change in the overall structure height of ASRN 1052108.

2. *City Coverage Compliance:* The instant modification application will provide the requisite city grade (48 dBu) signal to all of Carlsbad (see Figure 1).

3. *Interference Compliance:* As demonstrated in the attached *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 1.0 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 276 meters above ground level. The total DTV ERP is 80 kW (horizontal polarization). A conservative vertical plane relative field value of 0.18 is presumed for the antenna's downward radiation. The calculated power density at a point 2 meters above ground level is 1.15 uW/cm² which is 0.34% of the FCC's recommended limit of 335.3 uW/cm² for channel 19 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 markets 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.