

Environmental Statement  
KQSL  
Minor Modification to Convert to DTS Operation  
12/27/2020

No change in the main facility in Laytonville, CA, is proposed. Employing the methods set forth in OET Bulletin No. 65 and considering a main-lobe effective radiated power of 26 kW, an antenna radiation center 51 meters above ground. With a vertical relative field value of 20 percent at the steeper elevation angles for the Bogner antenna, maximum power density two meters above ground of 0.014 mW/cm<sup>2</sup> is calculated to occur near the base of the tower. This is 36 percent of the 0.2 mW/cm<sup>2</sup> reference for uncontrolled environments (areas with public access) surrounding a facility operating on channel 8 (180-186 MHz). There are no other full power TV or radio stations on the site. Therefore, this is considered a minor environmental action with respect to public and occupational ground-level exposure to non-ionizing electromagnetic radiation. Furthermore, the site location is completely fenced.

The additional DTS-2 transmitter at the Cloverdale, CA, site will have a main-lobe effective radiated power of 100 watts, an antenna radiation center 7 meters above ground. With a vertical relative field value of less than 10% at the steep elevation angles for the antenna, a maximum power density two meters above ground of 0.047 mW/cm<sup>2</sup> is calculated to occur close into the antenna site. Since this is 23.4 percent of the 0.2 mW/cm<sup>2</sup> reference for uncontrolled environments (areas with public access) surrounding a facility operating on channel 8 (180-186 MHz), this is considered a minor environmental action with respect to public and occupational ground-level exposure to non-ionizing electromagnetic radiation.

Nevertheless, all site locations have restricted access, and the applicant is diligent to ensure placards warning of radiation hazard are posted in and around the site always. Furthermore, station staff are trained how to cease operation if anyone climbs the tower.