

**MINOR CHANGE APPLICATION**  
**LEGEND COMMUNICATIONS OF WYOMING, LLC**  
**KLGT RADIO STATION**  
**CH 243C1 - 96.5 MHZ - 100.0 KW**  
**BUFFALO, WYOMING**  
**November 2011**

**EXHIBIT A**

**Radio Frequency Assessment**

The KLGT facility is co-located with another high power FM, therefore, the worksheets associated with FCC Form 301 could not be used to certify compliance with the Commissions RF exposure limits. A study has been made to determine whether this proposal is in compliance with 47 C.F.R. §1.1307 of the Commission's rules and with OET Bulletin #65, dated August 1997 ("Bulletin"), regarding human exposure to radio frequency radiation in the vicinity of broadcast towers. This study considers all nearby stations, specifically the co-located KZZS and K292DZ, and utilizes the appropriate formulas contained in the OET Bulletin.<sup>1</sup>

The KLGT antenna system is mounted with its center of radiation 140.1 meters (459.6 feet) above ground at the tower location and operates with an effective radiated power of 100.0 kilowatts in the horizontal and vertical planes (circularly polarized). The KLGT antenna is an Electronics Research rototiller style eight bay full wavelength antenna system. At 2.0 meters above the ground at the base of the tower, the height of an average person, the KGLT antenna system contributes  $0.0204 \text{ mw/cm}^2$ .<sup>2</sup> Based on exposure limitations for a controlled

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- 1) The contributions of the FM facilities were calculated using the FMModel program. A single bay EPA dipole antenna was used for calculation purposes. In cases where the number of bays of the antenna was known, this data was used in the FMModel program.
  - 2) This level of field occurs at 37.0 meters out from the base of the tower and is considered worst case.

environment, 2.0% of the allowable limit is reached at 2.0 meters above the ground at the base of the tower. For uncontrolled environments, 10.2% of the allowable limit is reached at 2.0 meters above the ground at the base of the tower.

The KZZS antenna system is mounted with its center of radiation 114.0 meters (374.0 feet) above ground at the tower location and operates with an effective radiated power of 100.0 kilowatts in the horizontal and vertical planes (circularly polarized). The KZZS antenna is an Electronics Research rototiller style eight bay full wavelength antenna system. At 2.0 meters above the ground at the base of the tower, the height of an average person, the KZZS antenna system contributes  $0.0311 \text{ mw/cm}^2$ .<sup>3</sup> Based on exposure limitations for a controlled environment, 3.1% of the allowable limit is reached at 2.0 meters above the ground at the base of the tower. For uncontrolled environments, 15.6% of the allowable limit is reached at 2.0 meters above the ground at the base of the tower.

The K292DZ antenna system is mounted with its center of radiation 22.6 meters (74.1 feet) above ground at the tower location and operates with an effective radiated power of 0.135 kilowatt in the horizontal plane. At 2.0 meters above the ground at the base of the tower, the height of an average person, the K292DZ antenna system contributes  $0.0029 \text{ mw/cm}^2$ .<sup>4</sup> Based on exposure limitations for a controlled environment, 0.3% of the allowable limit is reached at 2.0 meters above the ground at the base of the tower. For uncontrolled environments, 1.5% of the allowable limit is reached at 2.0 meters above the ground at the base of the tower.

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3) This level of field occurs at 30.0 meters out from the base of the tower and is considered worst case.

4) This level of field occurs at 12.0 meters out from the base of the tower and is considered worst case.

Combining the contributions of KLGT, KZZS and K292DZ, a total of 27.3% of the limit for an uncontrolled environment is reached at 2.0 meters above the ground at the base of the tower. Since this contribution level is less than the ANSI limits, it is believed that both KLGT are in compliance with the radio frequency radiation exposure limits, as required by the Federal Communications Commission. Legend will also insure that warning signs have been posted in the vicinity of the tower warning of potential radio frequency radiation hazards at the site. In addition, Legend will reduce the power of either facility or cease operation in cooperation and coordination with other tower users, as necessary, to protect persons having access to the site, tower, or antenna from radio frequency radiation in excess of FCC guidelines.