

MINOR CHANGE APPLICATION
LEGEND COMMUNICATIONS
OF WYOMING, LLC
KZZS RADIO STATION
CH 252C1 - 98.3 MHZ - 100.0 KW
STORY, WYOMING
February 2002

EXHIBIT #A

Radio Frequency and Environmental Assessment

Due to the co-location of two high power FM stations on a short tower, 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 and utilizes the appropriate formulas contained in the Bulletin.

Environmental Analysis

The proposed tower does not involve the use of high intensity white lighting (strobes) in a residential neighborhood. The structure is not located in an officially designated wilderness area or wildlife preserve, nor does it threaten the existence or habitat of endangered species. The facility does not affect districts, sites, buildings, structures or objects significant in American history, architecture, archaeology, engineering or culture that are listed in the National Register of Historic Places, or are eligible for listing, nor does it affect Indian religious sites. Further, the site is not located in a floodplain and will not, to the knowledge of the applicant, require significant change in surface features (wetland fill, deforestation or water diversion) at the time of construction.

Radio Frequency Radiation Study

This radio frequency radiation study is being conducted to determine whether this proposal is in compliance with OET Bulletin Number 65, dated August 1997, regarding human

exposure to radio frequency radiation in the vicinity of broadcast towers. This study considers all nearby contributing stations, specifically the proposed co-located KLGT², and utilizes the appropriate formulas contained in the OET Bulletin.³

The proposed KZZS eight bay antenna system will be mounted with its center of radiation 114 meters (375 feet) above the ground at the tower location and will operate with an effective radiated power of 100.0 kilowatts in the horizontal and vertical planes (circularly polarized). The proposed KZZS antenna is manufactured by Electronics Research, Inc., and is their rototiller type system (FCC Type #3). At two meters, the height of an average person, above the ground at the base of the tower, the KZZS antenna system will contribute 0.0309 mw.⁴ Based on exposure limitations for a controlled environment, 3.1% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 15.5% of the ANSI limit is reached at two meters above the ground at the base of the tower

The proposed KLGT eight bay antenna system will be mounted with its center of radiation 140 meters (460 feet) above the ground at the tower location and will operate with an effective radiated power of 100.0 kilowatts in the horizontal and vertical planes (circularly polarized). The proposed KLGT antenna is manufactured by Electronics Research, Inc., and is their rototiller type system (FCC Type #3). At two meters, the height of an average person, above the ground at the base of the tower, the KLGT antenna system will contribute 0.0203 mw.⁵

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- 2) Legend is the licensee of KLGT and is proposing to co-locate KZZS and KLGT on the same tower. Legend is submitting an application to relocate KLGT to the site specified in this instant application.
 - 3) The contributions of the FM stations are calculated with the FMModel program. The EPA dipole antenna was used for calculations unless otherwise noted.
 - 4) This level of contribution occurs at 30.4 meters out from the tower and is considered worst case.
 - 5) This level of contribution occurs at 36.8 meters out from the tower and is considered worst case.

Based on exposure limitations for a controlled environment, 2.0% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 10.2% of the ANSI limit is reached at two meters above the ground at the base of the tower

Combining the contributions of KZZS and KLGT, a total of 25.7% of the uncontrolled limit is reached at two meters above the base of the tower. Since this level for uncontrolled environments is well below the 100% limit defined by the Commission, the proposed KZZS facility is believed to be in compliance with the radio frequency radiation exposure limits as required by the Federal Communications Commission. Further, Legend Communications of Wyoming, LLC ("Legend") will post warning signs in the vicinity of the tower warning of potential radio frequency radiation hazards at the site. In addition, Legend will reduce the power of the 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. Based on the above factors, this proposal is categorically excluded from environmental processing pursuant to §1.1306 of the Commission's rules.