

TECHNICAL EXHIBIT  
APPLICATION FOR CONSTRUCTION PERMIT  
AUXILIARY ANTENNA  
STATION KRRN-FM  
DOLAN SPRINGS, ARIZONA  
CH 224C 0.05 KW 572 M

Technical Narrative

The technical exhibit of which this narrative is part was prepared in support of an application for construction permit for an auxiliary antenna for FM station KRRN-FM at Dolan Springs, Arizona. Currently, KRRN-FM is licensed to operate on channel 224C (92.7 MHz) at Dolan Springs with a nondirectional antenna maximum effective radiated power (ERP) of 100 kilowatt and an antenna radiation center height above average terrain (HAAT) of 541 meters (BLH-20021127AJE). By means of this instant application, KRRN-FM proposes an auxiliary antenna operation on channel 224C from its current booster site (KRRN-FM1, BLFTB-20021127AJD) with a nondirectional ERP of 0.05 kW (50 Watts) and an HAAT of 572 meters.

Response to Paragraph 5 - Antenna Structure Registration Number

Based on the FCC's TOWAIR program, the existing tower does not require registration as there are no airports within 8 kilometers (5 miles) of the tower location.

Compliance With Section 73.1675(a)

Figure 1, attached, is a map which demonstrates that the proposed auxiliary facility complies with the provisions of Section 73.1675(a).

Response to Paragraph 17 - Environmental Protection Act

The proposed KRRN-FM auxiliary facilities were evaluated in terms of potential radiofrequency radiation exposure at 2 meters above ground level in accordance with the OST Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation". This Bulletin provides assistance in determining whether FCC-regulated transmitting facilities, operations or devices comply with limits for human exposure to radiofrequency (RF) electromagnetic fields adopted by the Commission in 1996.

The proposed KRRN-FM antenna will be mounted at the 43 meter level on the existing tower structure. The calculated power density at 2 meters above ground level at the base of the tower was calculated using the appropriate equation contained in the Bulletin. Using a "worst case" vertical relative field value of 1.0 for the proposed nondirectional antenna, the total ERP of 0.1 kW (H+V) and an antenna center of radiation height above ground level of 43 meters, the calculated power density at two meters above ground level at the base of the tower is 0.0020 milliwatt per square centimeter ( $\text{mW}/\text{cm}^2$ ), or 0.99 percent of the Commission's recommended limit applicable to general population/uncontrolled exposure areas ( $0.2 \text{ mW}/\text{cm}^2$  for FM channel 224). Therefore, based on the responsibility threshold of 5%, the proposal will comply with the new RF emission rules.

Access to the tower site will be restricted and appropriately marked with warning signs. Furthermore, as this is a multi-user site, procedures will be in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such procedures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the station is at reduced power or shut down.

In addition, it appears that the existing structure is otherwise excluded from environmental processing as it complies with all the criteria for such an exclusion in Section 1.1306.

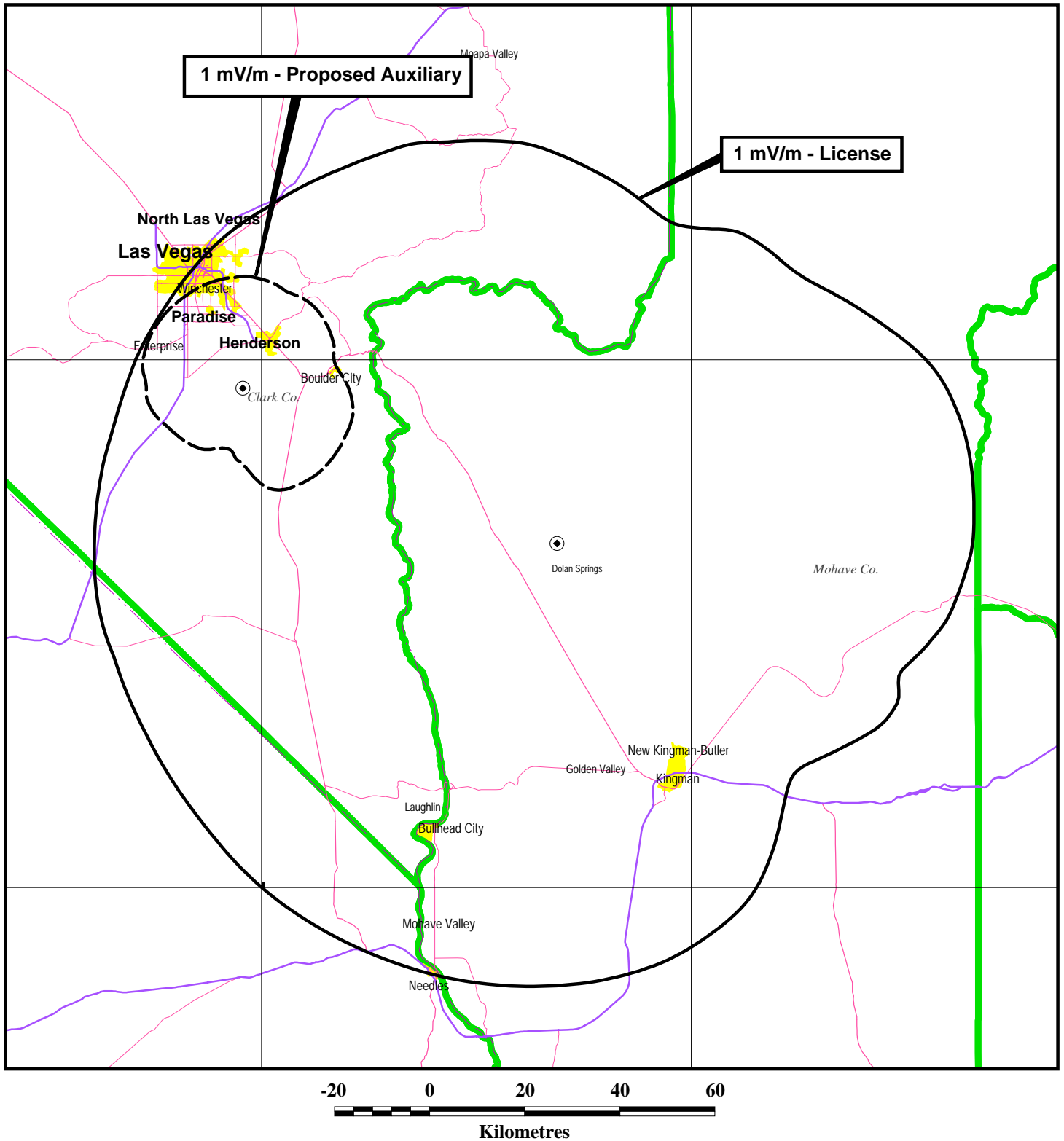
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Figure 1



**COMPLIANCE WITH SECTION 73.1675(a)  
PROPOSED AUXILIARY OPERATION  
STATION KRRN-FM  
DOLAN SPRINGS, ARIZONA  
CH 224C 0.05 KW 572 M**